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UNITED STATES ARMY
HEALTH CARE STUDIES
AND
CLINICAL INVESTIGATION ACTIVITY

X2 UTILIZATION AND TRAINING SURVEY: 1989

VOLUME I
INTRODUCTION, METHODS, AND
MAJOR POLICY ISSUES

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Executive Summary

This report presents results from a 1989 worldwide survey on the training and utilization of dental enlisted personnel who are trained to perform simple hygiene and expanded duty functions (X2s). Data was collected by self-administered questionnaires from five groups: (1) Dental Activity (DENTAC) commanders, (2) clinic chiefs, (3) X2 graduates, (4) doctors who worked with X2s within the past two years, and (5) potential X2 students.

The report is divided into two volumes. Volume I discusses the purpose of the study, its design, and results for major policy issues affecting the training and utilization of X2s. Volume II, which we anticipate will be released for publication by December 1990, will focus in detail on the training of X2s - what skills they most frequently use, how well their performance of specific tasks is rated by their supervisors, and what specific skills their supervisors think X2s should continue to be trained to perform.

The results from this study should be useful to the groups who commissioned it and assisted in its design: The Office of the Assistant Surgeon General, Chief of the Army Dental Corps; Health Services Command; The Army Medical Department Enlisted Propensity Branch; and the Academy of Health Sciences. Results from this study should offer guidance to these groups in shaping policies that affect the training and utilization of X2s.

Major findings and recommendations from Volume 1 of this report are summarized below. Detailed results and discussion may be found in the report.

Dental Hygiene Shortage

--Although evidence on the existence and extent of a dental hygiene shortage in the Army is contradictory, our interpretation of the data leads us to conclude that there is a major shortage. We also find that there are gross disparities in the distribution of hygiene personnel with the severest shortage occurring in CONUS DENTACS.

--Systemwide, current staffing levels for hygienists are 48% below what commanders view as ideal.

--Service population (active duty plus family members) to hygienist ratios range from 1,572.8 to 49,500 per hygienist.

--Among the 10 DENTACS with the worst service population to hygienist ratios, 9 are CONUS locations.

--We recommend using service population to hygienist ratios in allocating hygiene personnel. However, service population and

hygiene staffing figures must be accurate and up to date. Geographic constraints and the status of family member care (space available versus space required) should be taken into consideration. Sensitivity analysis, observing the effect that extra personnel have on ratios, is a useful adjunct when prioritizing the allocation of scarce personnel.

Policy Options for Correcting an X2 Shortage

--Three of six proposed options for correcting an X2 shortage are highly endorsed by commanders and clinic chiefs: (1) hiring more civilian hygienists, (2) increasing the number of classes in the current X2 program, (3) giving warrant officer status to dental hygienists.

--Decreasing X2 course content so more X2s could be trained is the most unpopular policy option for correcting an X2 shortage.

--Without detailed understanding of the costs, trade-offs, and political feasibility, we are unable to recommend a particular course of action. However, we do recommend that a task force be appointed to do this. We suggest that the task force include representatives from the groups who commissioned this study and that a neutral chairman be appointed.

Quality of X2 Training

--A majority of doctors, clinic chiefs, and commanders believe the overall quality of X2 graduates is good. X2 training is rated lowest on placement and carving of restorations.

--A large majority of doctors enjoys working with DTAs, and most commanders consider X2s productive.

Changes in X2 Training

--Among commanders, clinic chiefs, and X2 graduates, there is agreement that X2 training should be longer and should qualify X2s to take a state board in dental hygiene. However, commanders do not believe that X2 training should be extended to one or two years.

--There is strong support among commanders and clinic chiefs for giving warrant officer rank to X2s who complete longer training and pass a licensing board in dental hygiene. However, this support fades if it involves trading dental officer positions for warrant officer slots for dental hygienists.

--Warrant officer rank and board eligibility are viewed as strong incentives for applying for X2 training. Limiting X2s to E6 rank

is viewed as a strong disincentive.

--Commanders and clinic chiefs perceive a reluctance on the part of commanders to send their best 91Es to X2 training. This reluctance is based on the belief that X2 graduates may not be returned to their parent DENTAC or may be placed on levy for an overseas assignment. Such perceptions may impede enlisted personnel from attending X2 training.

--Unaware of the costs or political feasibility of training changes, we offer no specific recommendations for changes in X2 training. However, we do caution against any training policy change that does not take the self-interests of potential X2 students into consideration. The career choices we offer are voluntary. If they do not offer attractive incentives, our best enlisted soldiers will choose other career alternatives inside or outside of the Army.

Utilization of X2s

--X2s appear to be widely disseminated in the Army Dental Care System and to be utilized efficiently. Very few restrict themselves or are restricted by their supervisors from performing expanded dental functions.

--Restricting X2 graduates to hygiene or expanded dental functions for their careers, without warrant rank or board eligibility, appeals to supervisors but not to X2 graduates or potential X2 students. This illustrates that the intent and the effect of policies must both be carefully understood before effecting change.

--In the absence of career incentives, we see no way to enhance the efficiency of utilization of X2s. Their contribution to the system, however, could be increased by training greater numbers.

Chapter I: Introduction and Overview

1.1 Purpose of the Study

The purpose of this study is to explore policy issues related to the training and utilization of enlisted dental personnel (91Es) with the Additional Skill Indicator (ASI), X2. Such personnel, often referred to as X2s, are trained to perform simple hygiene and expanded dental functions, such as placing and carving of restorations. This report addresses concerns about the number of X2s being trained, the quality and adequacy of their training, and their utilization. By examining such issues, this report seeks to provide guidance to senior Dental Corps leadership for shaping future policy on training and utilization of X2s.

1.2 Organization of the Report

This report consists of two volumes. Volume I discusses the purpose of the study, its methods, and results for major X2 policy issues. The specific policy issues addressed are five-fold: (1) the magnitude of the shortage of dental hygienists in the Army, (2) policy options for correcting an X2 shortage, (3) the quality of X2 training, (4) changes in X2 training, and (5) the utilization of X2 personnel. Volume I deals with these issues in a broad perspective. Volume II focuses more specifically on the training of X2s. It identifies what specific skills commanders and doctors most value in X2s, what skills X2s most frequently use, and how commanders and doctors rate X2s on the performance of specific tasks.

1.3 Introduction

1.3.1 Purpose of the Report

This report presents results of data collected in the 1989 X2 Utilization and Training Survey. The study seeks to provide guidance to various organizations that have an influence on the training and utilization of enlisted dental personnel who perform simple hygiene and expanded dental functions (X2s). The report describes how X2s and the people for whom they work evaluate their training and performance. It describes how X2s are utilized immediately after training as well as their current utilization in the Army Dental Care System. The report probes the issue of whether a dental hygienist shortage exists and, if so, its extent. Finally, reactions to options for correcting an X2 shortage and for modifying X2 training are explored.

1.3.2 Background

Expanded function dental auxiliaries (EFDAs) are dental assistants who have been trained to perform a variety of procedures normally done by the dentist. These procedures are reversible (i.e., they can be either corrected or redone without undue harm to the patient's health). According to Dunning, EFDAs do not prepare cavities or make decisions as to pulp protection after caries are excavated but work alongside the dentist and take over routine restorative procedures as soon as the cavity preparation and base are completed (1).

During the 1960s and early 1970s when a critical shortage of dentists was seen as imminent, several experimental studies explored the impact that EFDAs would have on the output of dental services. These studies demonstrated that EFDAs were capable of performing a wide range of tasks at a good level of quality and could significantly increase a dentist's productivity and income (1-21). The first large-scale application of the expanded duty concept in a service setting was done by the Philadelphia Department of Public Health (1,22). Shortly thereafter the US Army began training and utilizing EFDAs (calling them X2s). By 1973, the Army had 22 EFDA teams in actual operation (1).

Despite their demonstrated effectiveness in experimental studies in the public sector, EFDAs did not proliferate in the private sector. There was a reluctance on the part of private practitioners to accept them, probably because of factors such as insufficient volume of patients, auxiliary turnover, and facility constraints not to mention limitations in state practice acts. Moreover, during the 1960s the American Dental Association (ADA) endorsed experimental projects with EFDAs. However, by the early 1970s when concern grew about the possibility of an oversupply of dentists, the ADA reversed its policy (15,16). Army dentists, however, were more receptive to the use of EFDAs (23).

From June 1971 through May 1972, the Army conducted a pilot study on the use of EFDAs. Fifteen dental care delivery teams were tested at three Army installations. EFDAs used in the study received 16 weeks of training in expanded dental functions (17). Based on the results of this study, the Army Dental Corps incorporated EFDAs into its delivery system in March 1972. Both military personnel and civilians were trained as EFDAs for 48 weeks (24). In 1985, the Army reduced X2 Training to 16 weeks.

Chapter 2: Methods

2.1 Study Samples and Sampling Strategy

To assess the impact of changes in policy with regard to X2 training and utilization, we decided it would be prudent to survey groups that would be affected by such policy changes. Thus we surveyed five groups: (1) Dental Activity (DENTAC) commanders, (2) clinic chiefs, (3) graduates of the X2 training program, (4) untrained enlisted personnel who are potential X2 students, and (5) doctors who have worked with X2s within the past two years.

We surveyed senior noncommissioned officers in charge (NCOIC) from DENTACs throughout the Army Dental Care System to determine the number of individuals from each target population in their DENTAC. The appropriate number of forms were then sent to each DENTAC to complete a census of each group.

2.2 Study Design and Procedure

This study collected data using self-administered questionnaires. Although there was overlap on certain topics, questionnaires were tailored to meet our information requirements for each group. We determined what information to collect from each group by designing the questionnaires with the input of four groups interested in the survey's results: (1) the Office of the Assistant Surgeon General, Chief of the Dental Corps (OTSG), (2) Health Services Command (HSC), (3) The Army Medical Department Enlisted Propensity Branch (AMEDEPB), and (4) the Academy of Health Sciences (AHS).

We field tested the X2 graduate questionnaire on a recently graduated class of an enlisted dental clinic administration course at the AHS. Although the forms were lengthy, each student completed the questionnaire without difficulty and assured us that most enlisted personnel would complete the form in order to have their views heard on X2 training and utilization.

To enhance the participation rate, we attached an endorsement letter signed by the Chief of the Army Dental Corps to each questionnaire. A copy of the endorsement letter, the survey letter of instruction, and the survey instruments are found in Appendix A.

2.3 Data Analysis

2.3.1 Data Management

Completed survey forms were screened and edited by the Dental Studies Division, U.S. Army Health Care Studies and Clinical Investigation Activity and were entered onto a computer tape through a contract monitored by the Health Care Systems Support

Activity. Data analysis was performed by Dental Studies personnel using the Statistical Analysis System (SAS).

2.3.2 Major Analysis Groups

Analyses were done for each of the five study samples. Simple frequencies were calculated. Where appropriate, comparisons between samples and between assignment subgroups within samples were made. Assignment subgroups refer to continental US (CONUS) and other than continental US (OCONUS) locations. This report will focus mostly on the responses of commanders because they have the greatest influence on policy.

2.3.3 Key Outcome Variables

Results in this report are organized into chapters devoted to key outcome variables. These include measures of dental hygiene shortage, policy options for dealing with an X2 shortage, quality of X2 training, changes in X2 training, and utilization of X2s. For many questions, the level of agreement was chosen from a five point scale consisting of the following: (a) strongly agree, (b) agree, (c) no opinion, (d) disagree, and (e) strongly disagree. For these questions we collapsed choices (a) and (b) into agree and choices (d) and (e) into disagree.

2.3.3.1 Dental Hygiene Shortage

Several questions were designed to measure whether a shortage of dental hygienists exists and the severity of any shortage. First, we asked commanders whether they thought there is a shortage of dental hygienists in the Army. Then, to gauge the overall shortage of hygiene personnel for specific service populations, we first asked commanders and clinic chiefs whether they had enough hygienists (X2 and civilian) to satisfy the demand for oral hygiene services of permanent-party, active-duty soldiers, family members, and retirees. To quantify the inadequacy of dental hygienists, we asked commanders and clinic chiefs how long their specific service populations had to wait for oral hygiene services. Next we asked commanders and clinic chiefs if they had a shortage of prophylaxis hygienists, scaling hygienists, x-ray technicians, expanded function dental assistants (DTAs), dental assistants, and administrative personnel. Finally, we asked commanders and clinic chiefs how many full-time dental hygienists they needed. The question was split into simple prophylaxis hygienists and scaling and root planing hygienists. We compared current and requested staffing levels of hygienists to the size of the population served in order to gauge the magnitude of the hygiene shortage and the optimal staffing level. We then studied the effect on the service population per hygienist ratio of adding one and two full-time hygienists to the current staffing level (i.e., sensitivity analysis) in order to show where adding extra hygiene personnel would be most beneficial.

2.3.3.2 Policy Options for Dealing with an X2 Shortage

We asked commanders and clinic chiefs to indicate their level of agreement on six policy options for dealing with a shortage of X2 personnel. The six policy options were as follows:

- (1) Send selected soldiers directly from advanced individual training to X2 training;
- (2) Increase the number of classes in the current X2 training program;
- (3) Decrease the length and content of the current X2 training program so more classes could be trained;
- (4) Have the Academy of the Health Sciences (AHS) develop a program that would provide standardized X2 training to soldiers at their current assignment (OJT);
- (5) Offer warrant officer status to dental hygienists; and
- (6) Hire more civilian dental hygienists.

2.3.3.3 Quality of X2 Training

We assessed the quality of X2 training with several questions. First, we asked two questions to evaluate the overall quality of trained X2s. We asked commanders, clinic chiefs, and doctors to rate the performance of X2 graduates, overall, as: (a) excellent, (b) very good, (c) good, (d) fair, or (e) poor. Then we asked commanders, clinic chiefs, and doctors if X2s measured up to their expectations for patient care quality assurance. A simple yes or no response was selected.

Next we sought evaluations of specific X2 clinic functions. Commanders, clinic chiefs, X2 graduates, and doctors were asked whether X2s are adequately trained to place and carve restorations. Responses were limited to yes, no, and no opinion. In this report, we present the percent of respondents who answered yes to this question. Then we asked commanders, clinic chiefs, and doctors whether they considered the quality of hygiene services provided by X2 graduates as substandard. In this report we present the percent of respondents who agreed with this statement.

To evaluate the performance of X2s, we asked four questions. First, we asked doctors whether they enjoyed working with expanded function X2s (DTAs). Second, we asked commanders how X2 DTAs affected the output of restorative services. Response options included (a) increase, (b) decrease, (c) no effect, and (d) not applicable. Finally, we asked doctors to compare military and civilian DTAs with regard to performance and productivity, respectively. Responses were limited to (a) military better, (b)

same, (c) civilian better, and (d) no basis to judge.

2.3.3.4 Changes in X2 Training

To assess the need for changes in X2 training, we asked commanders, clinic chiefs, and X2 graduates three questions: (1) Should X2 training be lengthened; (2) Would they favor an X2 course qualifying graduates for a state board; and (3) Would they favor lengthening X2 training to one to two years? We asked commanders and clinic chiefs three more questions: (1) What rank X2s with state licenses should have; (2) Would they favor giving warrant officer rank to X2s who complete longer training and pass a state board, and (3) Should the Dental Corps feel obligated to provide hygiene care by licensed hygienists? Finally, we asked commanders only, should the Dental Corps convert dental officer slots into warrant officer hygiene slots.

To evaluate the possible effects of changes in X2 training, we asked potential X2 students four questions: (1) Do you plan to apply for X2 training; (2) Would you be content staying a dental hygienist if you could be promoted to any enlisted rank; (3) If licensed dental hygienists were limited to E6 rank, what would you do after being promoted to E6; and (4) Would you apply for a two year X2 course? In addition, we asked commanders, clinic chiefs, X2 graduates, and potential X2 students what impact on applications for X2 training a one to two year training program and board eligibility would have, respectively. Finally, we asked commanders and clinic chiefs what effect the prospect of warrant officer rank would have on applications for X2 training.

To determine whether there is a reluctance on the part of commanders to send 91Es to X2 training, we asked commanders, clinic chiefs, and X2 graduates to indicate their level of agreement with the following statements: (1) Unit commanders are reluctant to send their best 91Es to X2 training because X2 graduates are not returned to their parent DENTAC, and (2) Unit commanders are reluctant to send their best 91Es to X2 training because after X2 training, graduates are often placed on levy for overseas assignments within a year.

2.3.3.5 Utilization of X2s

In order to determine the extent to which X2s are utilized for expanded duty functions, we asked commanders, clinic chiefs, X2 graduates, and doctors whether X2s were placing and carving restorations. Then, as a way of enhancing the efficiency of X2 utilization, we asked commanders, clinic chiefs, X2 graduates, and potential X2 students whether X2 graduates should be restricted to hygiene or expanded dental functions for the remainder of their careers.

Chapter III: Results for Major Policy Issues

3.1 Sample Size and Response Rate

Table 1 gives the number of respondents for each sample by assignment status (CONUS or OCONUS). Of 52 DENTACs system-wide, 49 returned questionnaires giving a 94.2% response rate.

3.2 Dental Hygiene Shortage

Figure 1 shows that 90% of all DENTAC commanders think there is a shortage of dental hygienists in the Army. One hundred percent of OCONUS commanders perceive such a shortage.

Perceptions of the adequacy of the number of dental hygienists for various service populations within their own DENTAC or clinic are given in Figures 2-7. Commanders are more likely than clinic chiefs to perceive they have an adequate number of dental hygienists to meet the demand of their active duty soldiers. However, with regard to family members and retirees, clinic chiefs are more likely than commanders to perceive they have adequate hygiene support. With the exception of retirees, CONUS commanders and clinic chiefs are more likely than their OCONUS counterparts to think they have an adequate supply of hygienists.

At least 50% or more of commanders and clinic chiefs feel they have enough hygiene support to meet the demand of active duty soldiers. Fewer than half feel that way about family members and retirees.

Waiting time (in weeks) for a hygiene appointment for active duty and family members is given in Figures 8-11. These figures represent waiting times reported by commanders and clinic chiefs. According to the data, only 24-28% of active duty soldiers and 40-43% of family members have to wait more than three weeks for an oral hygiene appointment. Maximum waiting time reported by chiefs for both groups is longer than that reported by commanders.

Perceptions of shortages of clinic personnel are shown in Figures 12-17. With the exception of clinic chiefs in CONUS, a majority of commanders and clinic chiefs believe they are short of prophylaxis and deep scaling hygienists. In general, a greater proportion of commanders and clinic chiefs report a shortage of hygienists than all other types of clinic personnel. In addition, OCONUS commanders and clinic chiefs perceive they have a greater shortage of clinic personnel, except for dental assistants, than their CONUS colleagues.

When asked how many prophylaxis hygienists they need, commanders are nearly evenly split between two or fewer (52.7%) or three or more (47.3%) (Figure 18). CONUS commanders are more likely to claim they need 2 or fewer prophylaxis hygienists (65.4%), whereas OCONUS commanders are more likely to claim they need 3 or more (75%) (Figures 19 and 20). However, the majority of CONUS (90.3%) and OCONUS (89.8%) clinic chiefs perceive a need for 2 or fewer prophylaxis hygienists with most feeling they need just one (Figures 21 and 22).

Similarly, with regard to the number of deep scaling hygienists needed, a majority of all commanders and CONUS commanders perceive a need for two or fewer, with most believing they need only one. In comparison, OCONUS commanders are evenly split between believing they need two or fewer or three or more deep scaling hygienists (Figures 23-25). Figures 26 and 27 show that nearly all CONUS (93.8%) and OCONUS (95.4%) clinic chiefs feel they need two or fewer deep scaling hygienists. A comparison of the absolute numbers of all trained hygiene personnel present and extra clinic personnel needed, as reported by DENTAC commanders by assignment location, is given in Tables 2-4.

Due to non-response or faulty survey questionnaires, the number of hygiene personnel present was reported by 44 of 49 commanders, (31 of 35 CONUS commanders, and 13 of 14 OCONUS commanders). In all three tables, the absolute number of extra dental hygienists requested exceeds any other type of clinic personnel. Dental assistants are the next most commonly requested people for CONUS commanders whereas expanded dental function auxiliaries (DTAs) are the next most commonly requested by OCONUS commanders.

Comparing the absolute number of hygienists present to the absolute number of extra hygienists needed suggests that DENTACS are staffed considerably below their optimal level of hygiene support. If we restrict our analysis to DENTACS for which we have complete data (i.e., 44 total, 31 CONUS, and 13 OCONUS), the percent of optimal staffing with regard to hygiene personnel is 52% overall, 55.1% in CONUS, and 46.2% in OCONUS.

The absolute number of clinic personnel needed is greater for CONUS rather than OCONUS assignments. However, there are far more CONUS DENTACS. If we control for the number of DENTACS by dividing the number of extra clinic personnel requested by the number of DENTACS (Tables 2-4), it appears that OCONUS DENTACS have a more severe shortage of personnel.

A limitation of looking at the data this way is that DENTACS vary in the size of their service populations. Thus, in Tables 6-17, we examine the size of the service population (active duty only and active duty plus family members) per hygienist by assignment location (Total, CONUS only, and OCONUS only) and by hygiene

staffing level (current and requested). These tables are preceded by a key to the abbreviations used in them.

Tables 6 and 8 cover current hygiene staffing levels at all DENTACs. Shown for each DENTAC are the following: (1) the number of dental hygiene full-time equivalents, (2) the service population (active duty only in Table 6; active duty plus family members in Table 8), (3) and three different service population per hygienist ratios. The first ratio shows the current situation. The second shows what the ratios would be if an additional hygienist was added to the DENTAC. Finally, the third and final ratio shows the effect of adding two hygienists to each DENTAC.

Tables 6 and 8 show that the worst ratios of soldiers per hygienist and soldiers plus family members per hygienist are not exclusively at OCONUS sites. In fact, when we consider active duty population only, six of the worst 10 sites are in CONUS. When both active duty and family members are included, nine of the worst 10 sites are in CONUS.

The range and magnitude of differences of these ratios is pronounced. In Table 6, if we compare the worst (22,000) with the best (496.7), there is a 44 fold difference. In Table 8, the difference is 31 fold.

The sensitivity analyses show that the addition of one hygienist to the worst DENTAC dramatically improves its service population per hygienist ratio. However, the impact of an additional hygienist is less influential for the next to the worst DENTAC. In fact, the addition of two hygienists to the next to the worst DENTAC has less impact than the addition of one to the worst.

Under optimal staffing (Tables 7 and 9), the range and magnitude of differences in ratios of service population per hygienist are much reduced. If active duty soldiers alone are considered (Table 7), the worst ratio (4600) is just over 10 times that of the best ratio (450). When we include soldiers and family members (Table 9), the difference is just over 13 fold.

3.3 Policy Options for Correcting an X2 Shortage

Figures 28-33 show how commanders evaluated six policy options for correcting an X2 shortage. We have arranged these options in decreasing order of preference. The most popular option is that the Army should hire more civilian dental hygienists (77.5%). Next, commanders believe the Army should increase the number of classes in the current X2 training program (67.3%). Closely following this option, commanders think the Army should offer warrant officer status to dental hygienists (63.2%). Less than a majority support the remaining policy options. Least popular is that the Army should decrease the length of X2 training so more X2s could be trained (12.2%).

The reaction of clinic chiefs to these six policy options is similar to that of the commanders (Figures 34-39). The only difference is their ranking of second and third choice (see Tables 18 and 19).

3.4 Quality of X2 Training

The overall performance of X2s is rated excellent or very good by 76.1% of commanders and 69.6% of clinic chiefs but only 41.7% of doctors (Figures 40-42). Although solid majorities of these three groups feel X2s meet their quality assurance standards, the proportion drops as one moves from commanders to clinic chiefs, to doctors (Figure 43).

Figure 44 compares opinions with regard to whether X2s are adequately trained to place and carve restorations. X2 graduates and doctors are twice as likely as commanders and clinic chiefs to view this aspect of X2 training as adequate. Although clinic chiefs and doctors are twice as likely as commanders to think X2s provide substandard hygiene care, over four-fifths of all three groups do not view X2 hygiene care as substandard (Figure 45).

Over three-quarters of doctors consider working with DTAs enjoyable (Figure 46). Most commanders (62.2%) believe X2 DTAs increase the output of restorative services (Figure 47). Figures 48 and 49 demonstrate that doctors rate both the performance and productivity of civilian DTAs as better than that of military DTAs.

3.5 Changes in X2 Training

Figures 50-52 show that two-thirds or more of commanders, clinic chiefs, and X2 graduates support longer X2 training. Among those who feel X2 training should be lengthened, clinic chiefs and X2 graduates tend to favor shorter training than commanders. While 62.6% of X2 graduates favor 17-30 weeks of training and 70.6% of clinic chiefs favor 17-28 weeks, commanders appear evenly split between favoring shorter (48%) or longer (40%) training (Figures 53-55).

Two-thirds or better of all three groups favor an X2 course qualifying graduates to take a state board in dental hygiene (Figures 56-58). Figure 59 shows that nearly twice as many chiefs (58.3%) as commanders (34.6%) think the Dental Corps should feel obligated to provide care by licensed dental hygienists. While commanders are nearly evenly split on the issue of lengthening X2 training to one to two years, clinic chiefs (58.3%) and X2 graduates (75.8%) solidly support this (Figures 60-62).

Figures 63-66 show that solid majorities of commanders and clinic chiefs support warrant officer rank for X2s with state licenses in dental hygiene. However, Figure 67 reveals that commanders do not support converting dental officer slots into

warrant officer positions for hygienists.

Roughly equal proportions of potential X2 students plan to apply, not to apply, or are not sure whether they will apply for X2 training (Figure 68).

A slight majority of potential X2s (52.5%) and 59.9% of X2 graduates say they would be content staying as a dental hygienist if they could be promoted to any enlisted rank (Figures 69 and 70). However, three-quarters of both of these groups would change their MOS or quit the Army if, as licensed hygienists, they were limited to E6 rank (Figures 71 and 72).

Figures 73, 74, and 76 show that commanders, clinic chiefs, and potential X2 students are equivocal about how a one to two year X2 course would affect applications for training. In contrast, X2 graduates clearly believe longer X2 training would have no effect on applications for X2 training (Figure 75). Just over half of potential X2 students say they would apply for a two year X2 course (Figure 77).

Figures 78-81 show a consensus among commanders, clinic chiefs, X2 graduates, and potential X2 students that board eligibility would increase the number of applications for X2 training. Warrant officer rank for boarded X2s would also increase the number of applications for X2 training according to commanders and clinic chiefs (Figures 82 and 83).

Commanders and clinic chiefs are in agreement that commanders are reluctant to send their best 91Es to X2 training either because X2s will be put on levy for overseas assignments or because they will not be returned to their parent DENTAC after training (Figures 84-87). CONUS commanders are more likely to hold these opinions than OCONUS commanders.

3.6 Utilization of X2s

Nearly two-thirds of commanders report that they have X2s in their DENTAC who are placing and carving restorations. Another 14.3% are performing other full-time patient duties (probably hygiene). Very few commanders view X2s as inadequately trained to place and carve restorations (Figure 88). Thus, the data indicate that most DENTACs are utilizing at least some X2s in a clinical capacity.

At the clinic level, less than a third of clinic chiefs report having X2s who place and carve restorations (31.7%). A quarter have none assigned. Very few clinic chiefs view X2s as inadequately trained to place and carve restorations (3.7%). Half of the 43.4% who are not placing and carving restorations are performing non-patient duties, such as clinic administration (Figure 89).

The reports of commanders and clinic chiefs represent the utilization of X2s as a group in DENTACs and clinics. However, to determine their utilization on an individual level, we must review what X2 graduates and doctors tell us. Figure 90 reveals that 67.3% of X2 graduates report that they placed and carved restorations in their first assignment after X2 training. Of the 37.2% who did not, 21.5% were involved in other full-time patient care. Thus, nearly 90% of X2s were utilized in a clinical capacity after training (Figure 90).

Almost no doctors (3.2%) restrict X2s from placing and carving restorations because they view them as inadequate. X2s are less likely to hold this view of themselves (1.1%) (Figure 91).

Figure 92 shows the reaction of commanders, clinic chiefs, X2 graduates, and potential X2 students to the proposal that X2 graduates should be restricted to hygiene or expanded dental functions for their careers. Although this idea appeals to 44-54% of commanders and clinic chiefs, it is considerably less popular with X2 graduates (21.6%) and potential X2 students (28%).

Chapter IV: Discussion and Recommendations

4.1 Dental Hygiene Shortage

Although nearly all DENTAC commanders (89.8%) think there is a shortage of dental hygienists in the Army, the evidence for a shortage at the DENTAC level is contradictory. Arguing against a shortage are two pieces of evidence. First, over two-thirds of all commanders report they have an adequate number of hygienists to satisfy the demand of active duty soldiers. Although only 27.1% and 14.9% of the commanders make this claim for family members and retirees, respectively, these are not priority care groups. Second, waiting times for an oral hygiene appointment do not suggest a shortage of dental hygienists. Over three-quarters of active duty soldiers and 57.5% of family members wait two weeks or less for hygiene care.

Arguing in favor of a shortage are claims by commanders that they are short of prophylaxis (68.1%) and deep scaling (74.5%) hygienists. Comparing the absolute number of hygienists requested with current full time equivalents reveals that current staffing levels are considerably (48%) below optimal staffing levels. Comparing the ratio of service population per hygienist supports this conclusion and reveals gross disparities in the distribution of hygiene personnel.

Caution should be applied in accepting what the data tell us. Reports by commanders on the waiting time for hygiene appointments may not accurately reflect what is happening for two reasons. First, most commands may have policies allowing appointments to be made only as far as two weeks in advance. Thus, commanders may be reporting what their appointment policy is rather than how long beneficiaries actually are waiting for care.

Another reason why the waiting time figures provided by commanders may be inaccurate is bias. Opinion surveys are prone to a particular type of bias known as the "socially desired response". This occurs when respondents provide a response that they think is acceptable rather than telling what really exists. In responding to the waiting time question, commanders may have been reluctant to admit actual waiting times fearing long queues might reflect poorly on them as managers.

We conclude that the data on waiting times for hygiene appointments should be viewed with skepticism. A more accurate measure of this variable would come from asking the recipient of care. We recommend that this issue be explored on an upcoming, semi-annual, Soldier Support Center survey.

The number of extra hygiene personnel requested may be inflated. Extra hygienists are requested by some commanders who claim to have adequate hygiene personnel to satisfy both active duty and family member demand for hygiene care. Likewise, extra hygienists are requested by some commanders with low service population per hygienist ratios.

In our opinion, the best measure of the adequacy of hygiene support would be the ratio of service population per hygienist. As already stated, this measure indicates there is a shortage of dental hygienists and that there is a gross disparity in the allocation of hygienists in the Army Dental Care System.

However, the limitations of this measure should be kept in mind. Some DENTACS are using on-the-job trained personnel (not X2 graduates) to provide hygiene services, so their ratios of service population per hygienist may not be as severe as indicated. In our calculations, we excluded on-the-job trained hygienists so DENTACS employing such personnel would not be unfairly compared to other DENTACS.

Another limitation of using ratios is that they do not take geographic constraints into consideration. This could adversely affect many OCONUS DENTACS. For instance, the total service population of the Japan DENTAC is low. However, due to the geographic location of Tokyo and Okinawa it would not be reasonable to assign only one hygienist to the DENTAC. In a delivery system like the Army, some inefficiencies of scale must be accommodated.

Ratios also focus on a population's need rather than on its demand for care. Sometimes there are wide gaps between these. Expectations by service dependents for care from the military dental system are much greater at OCONUS and remote CONUS assignments than at other locations. Thus, a high ratio of service population per hygienist, say in Korea, should be viewed differently from a similar ratio in a well-populated urban or suburban post in the U.S., where access to civilian dental care through the Active Duty Dependents Dental Insurance Plan is available.

In prioritizing placement of dental hygienists in the Army Dental Care System, we recommend the use of service population to hygienist ratios plus sensitivity analyses. Active duty population to hygienist ratios should be applied where dependent dental care is provided on a space available basis. Active duty plus family member population to hygienist ratios should be applied where dependent dental care is provided on a space required basis. This means that a master list for decision making would be an amalgamation of the lists provided in this report.

With this approach, it is important to keep the dynamics affecting service population to hygienist ratios in mind. The ratios presented in this report are a snapshot in time and will change due to turnover in clinic personnel or to service populations (due to downsizing and base realignments). Thus, while we recommend this approach, we caution that the data used must be accurate and timely.

Sensitivity analyses will help clarify the outcome of allocating extra hygiene personnel. Sensitivity analyses demonstrate the effect that extra personnel would have on current ratios. This technique helps show where extra personnel would have the greatest and least impact on service population per hygienist ratios.

4.2 Policy Options for Correcting an X2 Shortage

There is close agreement between DENTAC commanders and clinic chiefs as to what policy options should be exercised to correct a shortage of X2 personnel (Tables 3 and 4). Hiring more civilian hygienists, increasing the number of classes in the current X2 program, and offering warrant officer status to dental hygienists are well supported options. Sending soldiers directly from advanced individual training, developing an on the job X2 training program, and decreasing course content to train more X2s are not.

The popular options are all expensive and may be difficult to implement, especially with an imminent downsizing of the Army on the horizon. As training and personnel budgets become more austere, none of the popular options may be economically feasible. The more economic options, on-the-job training and decreasing X2 course content are highly unpopular.

Offering warrant officer rank to dental hygienists faces an additional obstacle of gaining warrant officer slots from the Army. To do this, a convincing rationale for changing the status quo would have to be provided. The high volume of hygiene services provided by Army dental clinics?¹ coupled with concerns over quality assurance standards might be the best argument. However, the current political climate is probably not receptive to augmenting officer ranks.

Opponents of warrant officer rank would argue that the trade-off of substantially longer training for career hygienists might actually worsen the dental hygiene shortage in the Army. It would take too long to train too few hygienists. Advocates would counter

¹According to data collected in the Spring 1989 Dental Utilization survey, 61.8% of enlisted personnel and 71.5% of officers cited examinations or teeth cleaning as the main reason for their most recent dental visit.

that warrant officer rank would make Army careers attractive to graduates of civilian dental hygiene schools. Their training costs to the Army would be minimal (a simple officer basic course). This would more than offset the disadvantage of longer X2 training and may even enhance the overall quality of dental hygiene services in the Army.

Increasing the number of classes in the current X2 program is the least expensive of the popular policy options. However, size of the training staff and training facilities may be a limiting factor.

Without more detailed knowledge of the costs, trade-offs, and political feasibility of each option, we are unable to recommend a particular course of action. We recommend that a task force be appointed to fulfill this function. We suggest that the task force include representatives from Health Services Command, the Academy of Health Sciences, and the AMEDD Proponency Branch. A neutral chairman should be appointed.

4.3 Quality of X2 Training

There is a consensus among doctors, clinic chiefs, and commanders that the overall quality of X2 graduates is good, that they provide an acceptable level of hygiene care, that they contribute to clinic productivity, and that their chief weakness is placing and carving restorations. This suggests that a weakness in the current X2 training program is insufficient depth in teaching placement and carving of restorations. We recommend that more time in X2 training be devoted to developing these skills.

That a large proportion of doctors enjoys working with DTAs, and that most commanders feel X2s increase productivity suggest that x2s are welcomed and valued members of the dental health care delivery team. This argues for a continuance of their use in the Army.

The clear preference among doctors for civilian as opposed to military DTAs probably reflects a constant application of skills over a longer period of time. It may also reflect more maturity on the part of civilian assistants.

Since the Army Dental Corps will most likely never have all the resources it needs to accomplish its mission, we recommend that X2s continue to be trained and utilized for both hygiene and expanded dental duties. Quality of X2 graduates, already good, could be considerably enhanced by further emphasis in training on placement and carving of restorations.

4.4 Changes in X2 Training

Among DENTAC commanders, clinic chiefs, and X2 graduates, there is a consensus for longer X2 training and for an X2 course qualifying graduates to take a state board.

Commanders drop out of the consensus when asked whether X2 training should be lengthened to one or two years. Yet a one two year course would be required to prepare X2 course graduates for board eligibility. Perhaps commanders' opinions that the Dental Corps should not feel obligated to provide care by licensed dental hygienists explains their lack of support for one to two years of training. We are puzzled as to why commanders and clinic chiefs differ so much on this issue.

If X2s complete longer training and pass a state dental hygiene board, commanders and clinic chiefs would favor giving them warrant officer rank. This is true when commanders and clinic chiefs are given the option of selecting any rank for licensed X2 graduates (Figures 63 and 64). It is even more favored when warrant officer rank is specifically mentioned in the question (Figures 65 and 66). However, this support has its limits. Commanders do not favor warrant officer rank for hygienists if the trade-off involves sacrificing dental officer positions.

While a significant proportion of X2 graduates and potential X2 students would be content making careers of dental hygiene, few would do so if such a choice limited their potential for promotion. On the other hand, among all groups polled, board eligibility and warrant officer rank are viewed as strong incentives to apply for X2 training. These results are not surprising. They reflect a clear understanding on the part of all groups about what choices would be in the best self-interests of applicants for X2 training.

We do not know whether the perceived reluctance of commanders to send 91Es to X2 training actually impedes some enlisted personnel from being trained. Nor do we know whether X2 training actually enhances soldiers' chances of being put on levy for overseas assignments or of not returning to their parent DENTAC. However, if any of these events are real, then they may be adversely affecting the careers of 91Es. Even if such events are not happening, these misperceptions may cause harm.

Once again, we are unable to make a particular recommendation with regard to changes in X2 training. This is because we are not aware of the costs or political feasibility of the available options. However, we caution against any policy change in X2 training which does not carefully take the self-interests of potential X2 students into consideration. After all, we are expecting them voluntarily to select dental hygiene training and to make the Army a career. If we do not offer them attractive

incentives, our best soldiers will choose other career paths inside or outside of the Army.

4.5 Utilization of X2s

That nearly two-thirds of DENTACs have X2s placing and carving restorations suggests that X2s are widely disseminated in the Army Dental Care System and that they are being utilized in a clinical capacity. The lower utilization figure, reported by clinic chiefs suggests that the use of X2s for expanded functions may be limited to larger clinics where sufficient patient volume allows efficient utilization of DTAs. It should also be noted that the use of X2s as reported by commanders and clinic chiefs reflects the status of all X2s within their command or clinic. This would include X2s who graduated recently or a long time ago.

To better understand whether X2s are utilized efficiently, we need to examine what X2 graduates do. Nearly all X2 graduates report being utilized in a clinical capacity in their first tour after training. Very few commanders, clinic chiefs, or doctors restrict X2s from performing expanded functions. Thus, the evidence suggests that X2s are utilized efficiently in their first post-training tour.

Another way of enhancing the efficient use of X2s would be to restrict them to X2 functions for the remainder of their careers. While this idea is popular with supervisors, it is not attractive to X2 graduates or potential X2 students. This illustrates the importance of studying both the intentions and the effects of policy changes. While the intent of restricting X2s to hygiene or expanded dental functions would be to reduce the shortage of X2s, the effect might be to exacerbate it. Restricting X2 graduates to X2 functions for the remainder of their careers without further incentives, such as warrant officer status and eligibility for state licensure, would make X2 training unattractive. In the absence of such incentives, we see no way to enhance the efficient use of X2s.

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Appendix A:
Survey Instruments,
Endorsements, and
Letter of Instruction

Questionnaire for DENTAC/ Detachment Commanders

Training and Utilization of X2 Personnel

Case No. _____ (1-4)

Instructions

1. Please answer each question.
2. Feel free to write any comments you have about any question.
3. Return completed questionnaires to your project officer or project NCO.

BACKGROUND INFORMATION

1) Please estimate the population of permanent party, active-duty soldiers that your DENTAC/Detachment services. (5-9)

2) Please estimate the population of spouses and children of permanent party, active-duty soldiers that your DENTAC/Detachment services. (10-14)

3) How many clinically active, trained periodontists do you have in your DENTAC/Detachment? (15-16)

4) On the present TDA how many "authorizations" for civilian dental hygienists does your DENTAC/Detachment have? (17-18)

5) On the present TDA how many, "requirements" for dental hygienists does your DENTAC/Detachment have? (19-20)

6) How many civilian dental hygienists are in your DENTAC/Detachment? (21-22)

7) On the present TDA how many "authorizations" for civilian, expanded function, dental assistants (DTAs) does your DENTAC/Detachment have? (23-24)

8) On the present TDA how many "requirements" for civilian, expanded function, dental assistants (DTAs) does your DENTAC/Detachment have? (25-26)

9) How many civilian. expanded function, dental assistants (DTAs) are in your DENTAC/Detachment? (27-28)

10) How many of your civilian DTAs perform expanded functions at least 50% of the time? (29-30)

11) On the present TDA how many "authorizations" for military 91E with the Additional Skill Indicator (ASI) X2 in grades E3-E5 does your DENTAC/Detachment have? (31-32)

12) On the present TDA how many "requirements" for military 91E with ASI X2 in grades E3-E5 does your DENTAC/Detachment have? (33-34)

13) How many active-duty 91Es with ASI X2 in grades E3-E5 are in your DENTAC/Detachment? (35-36)

14) How many active-duty 91Es in grades E6 and above who have completed X2 training are in your DENTAC/Detachment? (37-38)

15) How many 91Es without X2 training in grades E3-E5 are in your DENTAC/Detachment? (39-41)

16) How many 91Es without X2 training in grades E6 and above are in your DENTAC/Detachment? (42-43)

17) How many military X2s in your DENTAC/Detachment perform expanded functions at least 50% of the time?

rank of DTA

number of DTAs

a. E3-E5 _____ (44-45)

b. E6 and above _____ (46-47)

18) Does your DENTAC/Detachment have an on-the-job hygiene skills training program? (circle one) (48)

a. Yes

b. No

19) Do you have enough dental hygienists (X2 and civilian) to satisfy the demand for oral hygiene services from your:(circle yes or no for each group)

a. permanent-party, active-duty soldiers Yes No (49)

b. family members of permanent-party, active-duty soldiers Yes No (50)

c. clinical periodontists (if you have no periodontists assigned to your DENTAC, leave blank) Yes No (51)

d. retirees Yes No (52)

20) How long is the waiting time for oral hygiene services in your DENTAC/Detachment for: (if none, put 0)

a. permanent-party, active-duty soldiers (53-54,55-56)

_____wks_____mos

b. family members of permanent-party, active-duty soldiers (57-58,59-60)

_____wks_____mos

c. referrals from your clinic periodontists (if you have no periodontists assigned to your clinic, leave blank)

_____wks_____mos (61-62,63-64)

d. retirees (65-66,67-68)

_____wks_____mos

21) In your opinion, is there a shortage of dental hygiene personnel in the Army dental care system? (circle one) (69)

a. Yes

b. No

c. No opinion

TRAINING

22) How many X2 graduates in your DENTAC/Detachment attended the:

a. 16 week X2 course _____ (70-71)

b. 48 week X2 course _____ (72-73)

c. other X2 course _____ (74-75)

(please specify length) _____

23) Overall, how would you rate the performance of X2 graduates in your DENTAC/Detachment? (circle one) (76)

- a. excellent
- b. very good
- c. good
- d. fair
- e. poor

24) Do X2 graduates measure up to your expectations for patient care quality assurance? (circle one) (77)

- a. Yes
- b. No

25) Is there anything your X2s did not learn in their schooling that should be added to the X2 training program? (circle one)(78)

- a. No.
 - b. Yes. Please comment: _____
-

26) Please indicate how well the following procedures are done by X2 graduates in your DENTAC/Detachment (check one).

	Excel- lent	Very Good	Good	Fair	Poor	Never Done	
a. Screening exams	___	___	___	___	___	___	(79)
b. Blood pressure recording	___	___	___	___	___	___	(80)
c. Intraoral x-rays	___	___	___	___	___	___	(81)
d. Panoramic x-rays	___	___	___	___	___	___	(82)
e. Adult prophylaxis	___	___	___	___	___	___	(83)
f. Child prophylaxis	___	___	___	___	___	___	(84)
g. Applying Topical Fluoride	___	___	___	___	___	___	(85)

	Excel- lent	Very Good	Good	Fair	Poor	Never Done	
h. Directing Group Self-Applied Top- ical Fluoride	—	—	—	—	—	—	(86)
i. Individual Oral Health Counseling	—	—	—	—	—	—	(87)
j. Group Oral Health Counseling	—	—	—	—	—	—	(88)
k. Sealant Application	—	—	—	—	—	—	(89)
l. Place and carve 1 Surface Amalgams	—	—	—	—	—	—	(90)
m. Place and carve 2 Surface Amalgams	—	—	—	—	—	—	(91)
n. Place and carve 3 or more surface Amalgams	—	—	—	—	—	—	(92)
o. Simple Composite Restorations	—	—	—	—	—	—	(93)
p. Complex Composite Restorations	—	—	—	—	—	—	(94)
q. Acid Etch	—	—	—	—	—	—	(95)
r. Temporary Res- torations	—	—	—	—	—	—	(96)
s. Polish Restor- ations	—	—	—	—	—	—	(97)
t. Place an inter- mediate base	—	—	—	—	—	—	(98)
u. Rubber Dam appli- cation	—	—	—	—	—	—	(99)
v. Periodontal Scaling	—	—	—	—	—	—	(100)
w. Taking Dental Im- pressions	—	—	—	—	—	—	(101)
x. Injecting Dental Anesthetics	—	—	—	—	—	—	(102)

27) What do you think of the content of the X2 course? (circle one) (103)

a. Just right. Course material is relevant and useful.

b. Too limited. More topics should be covered. (please explain)

c. Too broad. More topics should be dropped. (please explain)

d. No opinion. Don't know what the content of the X2 course is.

28) Do you think the current X2 course of 16 weeks provides adequate training in placing and carving restorations? (circle one) (104)

a. Yes.

b. No.

c. No opinion.

29) Do you think the current X2 course of 16 weeks provides adequate training in dental hygiene? (circle one) (105)

a. Yes.

b. No.

c. No opinion.

30) Would you favor lengthening X2 training to provide more skill development in expanded functions and hygiene (e.g. scaling and root planing) ? (circle one) (106)

a. Yes.

b. No.

c. No opinion.

If yes, how long? _____

(107-108)

31) Would you favor lengthening X2 training to one or two years to provide more skill development in expanded functions and hygiene (e.g. scaling and root planing) ? (circle one) (109)

- a. Yes.
- b. No.
- c. No opinion.

32) In your opinion, how would longer X2 training (1 to 2 years) impact on applications for X2 training? (circle one) (110)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to spend that much time in training.
- c. More people would apply. X2 training would be viewed as more desirable.
- d. Other. (please explain): _____

33) Would you favor an X2 course that would qualify graduates to take a state board for a dental hygiene license? (circle one) (111)

- a. Yes.
- b. No.
- c. No opinion.

34) In your opinion, how would eligibility to take a state board in dental hygiene impact on applications for X2 training? (circle one) (112)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to have a dental hygiene license.
- c. Fewer people would apply. Not many soldiers would be able to meet the educational requirements for entry into X2 training.
- d. More people would apply. X2 training would be viewed as more desirable.
- e. Other. (please explain): _____

35) Please indicate your agreement with the following statement:
X2 graduates who earn a state dental hygiene license would
probably leave the Army after they have completed their service
for training obligation. (circle one) (113)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

36) Would you be in favor of a separate enlisted MOS for state
licensed dental hygienists? (circle one) (114)

- a. Yes
- b. No
- c. No opinion

37) What rank should be given to X2 graduates who have passed a
state dental hygiene board? (circle one) (115)

- a. E4.
- b. E5.
- c. E6.
- d. E7.
- e. W1.
- f. W2.

38) Would you favor giving Warrant Officer rank to X2 graduates
who complete longer training and pass a dental hygiene board?
(circle one) (116)

- a. Yes
- b. No
- c. No opinion

39) In your opinion, how would the prospect of warrant officer rank for X2 graduates holding a state dental hygiene license impact on applications for X2 training? (circle one) (117)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to have a dental hygiene license.
- c. Fewer people would apply. Not many soldiers would be able to meet the educational requirements for entry into X2 training.
- d. More people would apply. X2 training would be viewed as more desirable.
- e. Other. (please explain) _____

40) Please indicate your agreement with the following statement: X2 graduates with warrant officer rank and a state dental hygiene license would be less likely to leave the Army after they have completed their service for training obligation than enlisted rank X2 graduates with a state dental hygiene license. (circle one) (118)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

41) Please indicate your agreement with the following statement: By offering warrant officer status to licensed dental hygienists, the Army would become an attractive career to graduates of dental hygiene schools. (circle one) (119)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

42) Do you think X2 training should continue to teach placement and carving of restorations? (circle one) (120)

a. Yes.

b. No.

c. No opinion.

43) Please indicate your opinion on whether the following procedures should be taught to students in X2 training. (check one)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
a. Screening exams	___	___	___	___	___	(121)
b. Blood pressure recording	___	___	___	___	___	(122)
c. Intraoral x-rays	___	___	___	___	___	(123)
d. Panoramic x-rays	___	___	___	___	___	(124)
e. Adult prophylaxis	___	___	___	___	___	(125)
f. Child prophylaxis	___	___	___	___	___	(126)
g. Applying Topical Fluoride	___	___	___	___	___	(127)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(128)
i. Individual Oral Health Counseling	___	___	___	___	___	(129)
j. Group Oral Health Counseling	___	___	___	___	___	(130)
k. Sealant Application	___	___	___	___	___	(131)
l. Place and carve 1 Surface Amalgams	___	___	___	___	___	(132)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
m. Place and carve 2 Surface Amalgams	—	—	—	—	— (133)
n. Place and carve 3 or more surface Amalgams	—	—	—	—	— (134)
o. Simple Composite Restorations	—	—	—	—	— (135)
p. Complex Composite Restorations	—	—	—	—	— (136)
q. Acid Etch	—	—	—	—	— (137)
r. Temporary Res- torations	—	—	—	—	— (138)
s. Polish Restor- ations	—	—	—	—	— (139)
t. Place an inter- mediate base	—	—	—	—	— (140)
u. Rubber Dam appli- cation	—	—	—	—	— (141)
v. Periodontal Scaling	—	—	—	—	— (142)
w. Taking Dental Im- pressions	—	—	—	—	— (143)
x. Injecting Dental Anesthetics	—	—	—	—	— (144)

44) Please indicate your agreement with the following statement:
The Army should offer two levels of hygiene training called X2
and Advanced X2. X2 training would teach simple oral hygiene
measures such as prophys and oral hygiene instruction. X2
training and clinical experience would be a prerequisite for
Advanced X2 training. Advanced X2 training would teach more
advanced oral hygiene measures such as scaling and root planing.
(Circle one) (145)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

45) Please indicate your agreement with the following statement:
Graduates of Advanced X2 training should be restricted to hygiene
or expanded duty functions for the remainder of their service
careers. (circle one) (146)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

46) Please indicate your agreement with the following statement:
Senior warrant officer hygienists could be utilized as managers
of clinics devoted solely to providing hygiene care. (circle one)
(147)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

47) Several options have been suggested to correct a shortage of X2 graduates in military dental clinics. Please indicate your agreement with the following options.

A. Send selected soldiers directly from advanced individual training to X2 training. (circle one) (148)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. Increase the number of classes in the current X2 training program. (circle one) (149)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. Decrease the length and content of the current X2 training program so more classes could be trained. (circle one) (150)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. Have the Academy of the health Sciences (AHS) develop a program that would provide standardized X2 training to soldiers at their current assignment (OJT). (circle one) (151)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

E. The Army should offer warrant officer status to dental hygienists. (circle one) (152)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

F. The Army should hire more civilian dental hygienists. (circle one) (153)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

G. Do you have another idea for correcting the shortage of X2s? (154)

a. No

b. Yes

Please explain:

48) Please indicate your agreement with the following statement:
Soldiers need to gain maturity and clinical experience before
being sent to X2 training. (circle one) (155)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

Comments: _____

49) Please indicate your agreement with the following statement:
Sending soldiers to X2 training immediately after advanced
individual training would remove a valuable career incentive for
young soldiers. (circle one). (156)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

50) Please indicate your agreement with the following statement:
Decreasing course length would compromise the quality of X2
training. (circle one) (157)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

51) Please indicate your agreement with the following statements
regarding an AHS developed, on-the-job, hygiene training program:

A. The program would compromise the quality of X2 training. Not
all program sites would receive the same quality of instruction.
(circle one) (158)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. The program would not be attractive to 91Es. (circle one)(159)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. The program would place too much pressure on soldiers--clinic productivity and school requirements would conflict. (circle one)
(160)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. The program would place too much of a burden on the parent DENTAC. (circle one)
(161)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

52) Please indicate your agreement with the following statement:
The Dental Corps needs highly skilled, licensed dental hygienists so badly that it should convert some dental officer positions into warrant officer, dental hygiene positions. (circle one).
(162)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

53) If a shortage of X2 graduates existed, how would you remedy the problem? Please rank order the options below (place 1 by your first choice, 2 by your second choice, etc.)

___ Send selected soldiers directly from advanced individual training to X2 training. (163)

___ Increase the number of classes sent to the current X2 training program. (164)

___ Decrease the course content of the current X2 training program so more classes could be trained. (165)

___ Develop a program that would provide X2 training to soldiers at their current assignment. (166)

___ Hire more civilian dental hygienists. (167)

___ Give warrant officer rank to hygienists and recruit licensed dental hygienists for Army careers. (168)

___ Other. (please explain) _____. (169)

54) Please indicate your agreement with the following statement:
Unit commanders are reluctant to send their best 91Es to X2 training because X2 graduates are not returned to their parent DENTAC. (circle one) (170)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

55) Please indicate your agreement with the following statement:
Unit commanders are reluctant to send their best 91Es to X2
training because after X2 graduates return to their parent
DENTAC, they are often placed on levy for overseas assignments
within a year. (circle one) (171)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

56) Please indicate your agreement with the following statement:
The quality of hygiene services provided by X2 graduates is
substandard. (circle one) (172)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

57) Please indicate your agreement with the following statement:
The Army Dental Corps should feel obligated to provide hygiene
services to soldiers and their families by licensed dental
hygienists. (circle one) (173)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

UTILIZATION

58) How many X2 graduates in grades E3-E5 currently assigned to your Dentac/Detachment are used in the following roles? If part-time, indicate the percent of time spent in the given role.

	Full- time	Part- time	% of time in part- time role
a. Dental Hygienist	— —	— —	— — % (174-175, 176-177, 178-179)
b. X-ray technician	— —	— —	— — % (180-181, 182-183, 184-185)
c. Dental Therapy Assistant (performs expanded functions such as placing and carving restora- tions)	— —	— —	— — % (186-187, 188-189, 190-191)
d. Dental Assistant (no expanded functions allowed)	— —	— —	— — % (192-193, 194-195, 196-197)
e. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.)	— —	— —	— — % (198-199, 200-201, 202-203)

59) How many X2 graduates in grades E6 and above currently assigned to your Dentac/Detachment are used in the following roles? If part-time, indicate the percent of time in the given role.

	Full- time	Part- time	% of time in part- time role
a. Dental Hygienist	— —	— —	— — % (204-205, 206-207, 208-209)
b. X-ray technician	— —	— —	— — % (210-211, 212-213, 214-215)
c. Dental Therapy Assistant (performs expanded functions such as placing and carving restorations)	— —	— —	— — % (216-217, 218-219, 220-221)
d. Dental Assistant (no expanded functions allowed)	— —	— —	— — % (222-223, 224-225, 226-227)
e. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.)	— —	— —	— — % (228-229, 230-231, 232-233)

60) What skills in an X2 graduate do you most value? (circle one)
(234)

- a. hygiene skills
- b. expanded function skills
- c. both

61) Are any X2 graduates currently assigned to your Dentac/Detachment placing and carving dental restorations? (circle one) (235)

- a. No. I feel they are inadequately trained to do it.
- b. No. They feel they are inadequately trained to do it.
- c. No. Dentists assigned to the DENTAC/Detachment are opposed to it.
- d. No. They are assigned full-time to non-patient care duties (Admin, supply, NCOIC, etc.).
- e. No. Although I feel they are adequately trained to do it, they are assigned full-time to other patient care duties.
- f. Yes.
- g. There are no X2s assigned to this DENTAC/Detachment.

62) How many enlisted personnel without X2 training do you have performing the following duties in your DENTAC/Detachment?

	Full- time	Part- time	
a. Dental Hygienist	— —	— —	(236-237, 238-239)
b. Dental Therapy Assistant (performs ex- panded functions such as placing and carving restorations)	— —	— —	(240-241, 242-243)

63) How frequently would an X2 assigned to patient care duties in your DENTAC/Detachment do the following procedures. (check one).

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
a. Screening exams	—	—	—	—	—	(244)
b. Blood pressure recording	—	—	—	—	—	(245)
c. Intraoral x-rays	—	—	—	—	—	(246)
d. Panoramic x-rays	—	—	—	—	—	(247)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
e. Adult prophylaxis	___	___	___	___	___	(248)
f. Child prophylaxis	___	___	___	___	___	(249)
g. Applying Topical Fluoride	___	___	___	___	___	(250)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(251)
i. Individual Oral Health Counseling	___	___	___	___	___	(252)
j. Group Oral Health Counseling	___	___	___	___	___	(253)
k. Sealant Application	___	___	___	___	___	(254)
l. Place and Carve 1 Surface Amalgams	___	___	___	___	___	(255)
m. Place and Carve 2 Surface Amalgams	___	___	___	___	___	(256)
n. Place and Carve 3 or more sur- face amalgams	___	___	___	___	___	(257)
o. Simple Composite Restorations	___	___	___	___	___	(258)
p. Complex Composite Restorations	___	___	___	___	___	(259)
q. Acid Etch	___	___	___	___	___	(260)
r. Temporary Res- torations	___	___	___	___	___	(261)
s. Polish Restor- ations	___	___	___	___	___	(262)
t. Place an inter- mediate base	___	___	___	___	___	(263)
u. Rubber Dam appli- cation	___	___	___	___	___	(264)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
v. Periodontal Scaling	___	___	___	___	___	(265)
w. Taking Dental Im- pressions	___	___	___	___	___	(266)
x. Injecting Dental Anesthetics	___	___	___	___	___	(267)

64) Please indicate your agreement with the following statement:
Many X2 graduates are assigned to non-patient duties (Admin,
NCOIC etc.) because of their rank or time in the Army. (circle
one)

(268)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

65) Please indicate your agreement with the following statement:
Many X2 graduates are assigned to non-patient duties (Admin,
NCOIC, etc.) because of their X2 training. (circle one)
(269)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

66) Please indicate whether you have a shortage of the following types of dental personnel. If so, indicate how many of each type you would need to correct the shortage and your preference for military or civilian personnel to fill those slots.

Type of Personnel	Shortage? (circle one)	Number of Full-timers Needed	Preference M=military C=civilian E=either (circle one)	
a. Dental Hygienist (for simple prophys and oral hygiene instruction)	Yes No	___	M C E	(270,271- 272,273)
b. Dental Hygienist (for scaling and root planning)	Yes No	___	M C E	(274,275- 276,277)
c. X-ray technician	Yes No	___	M C E	(278,279- 280,281)
d. Dental Therapy Assistant (performs expanded functions such as placing and carving restora- tions)	Yes No	___	M C E	(282,283- 284,285)
e. Dental Assistant (no expanded functions allowed)	Yes No	___	M C E	(286,287- 288,289)
f. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.)	Yes No	___	M C E	(290,291- 292,293)

67) Do you send a dentist, X2, or dental hygienist into the schools on post to apply sealants to classes of children? (circle one) (294)

a. Yes.

b. No. We have no schools on post and have no sealant program for children.

c. No. We have no schools on post, but we do have a sealant program for children whose parents bring them to the dental clinic.

d. No. We do have schools on post but have no sealant program for children.

e. No. We do have schools on post, and we have a sealant program for children whose parents bring them to the dental clinic.

68) In your Dentac/Detachment, to what extent do X2 DTAs affect the output of restorative services by dentists. (295,296-297) (circle one)

a. Does not apply. This DENTAC/Detachment has no X2 DTAs.

b. X2 DTAs decrease productivity by ____ ____ %.

c. X2 DTAs have no impact on productivity.

d. X2 DTAs increase productivity by ____ ____ %.

Thank You for your assistance!

Questionnaire for Dental Clinic Chiefs
Training and Utilization of X2 Personnel

Case No. _____ (1-4)

Instructions

1. Please answer each question.
2. Feel free to write any comments you have about any question.
3. When you have completed the questionnaire, you may seal it in the attached envelop to keep your answers confidential.
4. Return completed questionnaires to your project officer or project NCO.

BACKGROUND INFORMATION

1) Please estimate the population of permanent party, active-duty soldiers that your clinic services. (5-9)

2) Please estimate the population of spouses and children of permanent party, active-duty soldiers that your clinic services. (10-14)

3) How many clinically active, trained periodontists do you have in your clinic? (15)

4) How many civilian and military dentists (including yourself) are assigned to your clinic? (16-17)

5) On the present TDA how many "authorizations" for civilian dental hygienists does your clinic have? (18-19)

6) On the present TDA how many, "requirements" for dental hygienists does your clinic have? (20-21)

7) On the present TDA how many "authorizations" for civilian expanded function, dental assistants (DTAs) does your clinic have? (22-23)

8) On the present TDA how many "requirements" for civilian expanded function, dental assistants (DTAs) does your clinic have? (24-25)

9) On the present TDA how many "requirements" for civilian, expanded function, dental assistants (DTAs) does your clinic have? (26-27)

10) How many civilian, expanded function, dental assistants (DTAs) are in your clinic? (28-29)

11) How many of your civilian DTAs perform expanded functions at least 50% of the time? (30-31)

12) On the present TDA how many "authorizations" for military 91E with the Additional Skill Indicator (ASI) X2 in grades E3-E5 does your clinic have? (32-33)

13) On the present TDA how many "requirements" for military 91E with ASI X2 in grades E3-E5 does your clinic have? (34-35)

14) How many active-duty 91E with ASI X2 in grades E3-E5 are in your clinic? (36-37)

15) How many active-duty 91E who have completed X2 training in grades E6 and above are in your clinic? (38-39)

16) How many 91E without X2 training in grades E3-E5 are in your clinic? (40-41)

17) How many 91E without X2 training in grades E6 and above are in your clinic? (42-43)

18) How many military X2s in your clinic perform expanded functions at least 50% of the time?

rank of DTA

number of DTAs

a. E3-E5 _____ (44-45)

b. E6 and above _____ (46-47)

19) Does your clinic have an on-the-job hygiene skills training program? (circle one) (48)

a. Yes

b. No

20) Do you have enough dental hygienists (X2 and civilian) to satisfy the demand for oral hygiene services from your: (circle Yes or No for each group)

a. permanent-party, active-duty soldiers Yes No (49)

b. family members of permanent-party, active-duty soldiers Yes No (50)

c. clinic periodontists (if you have no periodontists assigned to your clinic, leave blank) Yes No (51)

d. retirees Yes No (52)

21) How long is the waiting time (in weeks or months) for oral hygiene services in your clinic for: (if none, put 0)

a. permanent-party, active-duty soldiers (53-54, 55-56)

_____ wks _____ mos

b. family members of permanent-party, active-duty soldiers (57-58, 59-60)

_____ wks _____ mos

c. referrals from your clinic periodontists (if you have no periodontists assigned to your clinic, leave blank)

_____ wks _____ mos (61-62, 63-64)

d. retirees (65-66, 67-68)

_____ wks _____ mos

TRAINING

22) How many X2 graduates in your clinic attended the:

- a. 16 week X2 course ____ ____ (69-70)
- b. 48 week X2 course ____ ____ (71-72)
- c. other X2 course ____ ____ (73-74)
- (please specify length) _____

23) Overall, how would you rate the performance of X2 graduates in your clinic? (circle one) (75)

- a. excellent
- b. very good
- c. good
- d. fair
- e. poor

24) Do X2 graduates measure up to your expectations for patient care quality assurance? (circle one) (76)

- a. yes
- b. no

25) Is there anything your X2s did not learn in their schooling that should be added to the X2 training program? (circle one) (77)

- a. No.
- b. Yes. Please explain: _____
- _____

26) Please indicate how well the following procedures are done by X2 graduates in your clinic (check one).

	Excel- lent	Very Good	Good	Fair	Poor	Never Done	
a. Screening exams	___	___	___	___	___	___	(78)
b. Blood pressure recording	___	___	___	___	___	___	(79)
c. Intraoral x-rays	___	___	___	___	___	___	(80)
d. Panoramic x-rays	___	___	___	___	___	___	(81)
e. Adult prophylaxis	___	___	___	___	___	___	(82)
f. Child prophylaxis	___	___	___	___	___	___	(83)
g. Applying Topical Fluoride	___	___	___	___	___	___	(84)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	___	(85)
i. Individual Oral Health Counseling	___	___	___	___	___	___	(86)
j. Group Oral Health Counseling	___	___	___	___	___	___	(87)
k. Sealant Application	___	___	___	___	___	___	(88)
l. Place and carve 1 Surface Amalgams	___	___	___	___	___	___	(89)
m. Place and carve 2 Surface Amalgams	___	___	___	___	___	___	(90)
n. Place and carve 3 or more surface Amalgams	___	___	___	___	___	___	(91)
o. Simple Composite Restorations	___	___	___	___	___	___	(92)
p. Complex Composite Restorations	___	___	___	___	___	___	(93)
q. Acid Etch	___	___	___	___	___	___	(94)

	Excel- lent	Very Good	Good	Fair	Poor	Never Done	
r. Temporary Res- torations	___	___	___	___	___	___	(95)
s. Polish Restor- ations	___	___	___	___	___	___	(96)
t. Place an inter- mediate base	___	___	___	___	___	___	(97)
u. Rubber Dam appli- cation	___	___	___	___	___	___	(98)
v. Periodontal Scaling	___	___	___	___	___	___	(99)
w. Taking Dental Im- pressions	___	___	___	___	___	___	(100)
x. Injecting Dental Anesthetics	___	___	___	___	___	___	(101)

27) What do you think of the content of the X2 course? (circle one) (102)

- a. Just right. Course material is relevant and useful.
- b. Too limited. More topics should be covered. (please explain)

- c. Too broad. More topics should be dropped. (please explain)

- d. No opinion. Don't know what the content of the X2 course is.

28) Do you think the current X2 course of 16 weeks provides adequate training in placing and carving restorations? (circle one) (103)

- a. Yes.
- b. No.
- c. No opinion.

29) Do you think the current X2 course of 16 weeks provides adequate training in dental hygiene? (circle one) (104)

- a. Yes.
- b. No.
- c. No opinion.

30) Would you favor lengthening X2 training to provide more skill development in expanded functions and hygiene (e.g. scaling and root planing) ? (circle one) (105)

- a. Yes.
- b. No.
- c. No opinion.

If yes, how long should X2 training be? _____ (106-107)

31) Would you favor lengthening X2 training to one or two years to provide more skill development in expanded functions and hygiene (e.g. scaling and root planing) ? (circle one) (108)

- a. Yes.
- b. No.
- c. No opinion.

32) In your opinion, how would longer X2 training (1 to 2 years) impact on applications for X2 training? (circle one) (109)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to spend that much time in training.
- c. More people would apply. X2 training would be viewed as more desirable.
- d. Other. (please explain): _____

33) Would you favor an X2 course that would qualify graduates to take a state board for a dental hygiene license? (circle one) (110)

- a. Yes.
- b. No.
- c. No opinion.

34) In your opinion, how would eligibility to take a state board in dental hygiene impact on applications for X2 training? (circle one) (111)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to have a dental hygiene license.
- c. Fewer people would apply. Not many soldiers would be able to meet the educational requirements for entry into X2 training.
- d. More people would apply. X2 training would be viewed as more desirable.
- e. Other (please explain): _____

35) Please indicate your agreement with the following statement: X2 graduates who earn a state dental hygiene license would probably leave the Army after they have completed their service for training obligation. (circle one) (112)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

36) Would you be in favor of a separate enlisted MOS for state licensed dental hygienists? (circle one) (113)

- a. Yes
- b. No
- c. No opinion

37) What rank should be given to X2 graduates who have passed a state dental hygiene board? (circle one) (114)

- a. E4.
- b. E5.
- c. E6.
- d. E7.
- e. W1.
- f. W2.

38) Would you favor giving Warrant Officer rank to X2 graduates who complete longer training and pass a dental hygiene board? (circle one) (115)

- a. Yes
- b. No
- c. No opinion

39) In your opinion, how would the prospect of warrant officer rank for X2 graduates holding a state dental hygiene license impact on applications for X2 training? (circle one) (116)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to have a dental hygiene license.
- c. Fewer people would apply. Not many soldiers would be able to meet the educational requirements for entry into X2 training.
- d. More people would apply. X2 training would be viewed as more desirable.
- e. Other. (please explain): _____

40) Please indicate your agreement with the following statement:
 X2 graduates with warrant officer rank and a state dental hygiene
 license would be less likely to leave the Army after they have
 completed their service for training obligation than enlisted
 rank X2 graduates with a state dental hygiene license. (circle
 one) (117)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

41) Do you think X2 training should continue to teach placement
 and carving of restorations? (circle one) (118)

- a. Yes.
- b. No.
- c. No opinion.

42) Please indicate your opinion on whether the following
 procedures should be taught to students in X2 training. (check
 one)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
a. Screening exams	___	___	___	___	___	(119)
b. Blood pressure recording	___	___	___	___	___	(120)
c. Intraoral x-rays	___	___	___	___	___	(121)
d. Panoramic x-rays	___	___	___	___	___	(122)
e. Adult prophylaxis	___	___	___	___	___	(123)
f. Child prophylaxis	___	___	___	___	___	(124)
g. Applying Topical Fluoride	___	___	___	___	___	(125)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___ (126)
i. Individual Oral Health Counseling	___	___	___	___	___ (127)
j. Group Oral Health Counseling	___	___	___	___	___ (128)
k. Sealant Application	___	___	___	___	___ (129)
l. Place and carve 1 Surface Amalgams	___	___	___	___	___ (130)
m. Place and carve 2 Surface Amalgams	___	___	___	___	___ (131)
n. Place and carve 3 or more surface Amalgams	___	___	___	___	___ (132)
o. Simple Composite Restorations	___	___	___	___	___ (133)
p. Complex Composite Restorations	___	___	___	___	___ (134)
q. Acid Etch	___	___	___	___	___ (135)
r. Temporary Res- torations	___	___	___	___	___ (136)
s. Polish Restor- ations	___	___	___	___	___ (137)
t. Place an inter- mediate base	___	___	___	___	___ (138)
u. Rubber Dam appli- cation	___	___	___	___	___ (139)
v. Periodontal Scaling	___	___	___	___	___ (140)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
w. Taking Dental Im- pressions	—	—	—	—	— (141)
x. Injecting Dental Anesthetics	—	—	—	—	— (142)

43) Please indicate your agreement with the following statement:
The Army should offer two levels of hygiene training called X2
and Advanced X2. X2 training would teach simple oral hygiene
measures such as prophys and oral hygiene instruction. X2
training and clinical experience would be a prerequisite for
Advanced X2 training. Advanced X2 training would teach more
advanced oral hygiene measures such as scaling and root planing.
(Circle one) (143)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

44) Please indicate your agreement with the following statement:
Graduates of Advanced X2 training should be restricted to hygiene
or expanded duty functions for the remainder of their service
careers. (circle one) (144)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

45) Several options have been suggested to correct a shortage of X2 graduates in military dental clinics. Please indicate your agreement with the following options.

A. Send selected soldiers directly from advanced individual training to X2 training. (circle one) (145)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. Increase the number of classes in the current X2 training program. (circle one) (146)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. Decrease the length and content of the current X2 training program so more classes could be trained. (circle one) (147)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. Have the Academy of the health Sciences (AHS) develop a program that would provide standardized X2 training to soldiers at their current assignment (OJT). (circle one) (148)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

E. The Army should offer warrant officer status to dental hygienists. (circle one) (149)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

F. The Army should hire more civilian dental hygienists. (circle one) (150)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

G. Do you have another idea for correcting the shortage of X2s?
(151)

a. No

b. Yes

Please explain: _____

46) Please indicate your agreement with the following statement:
Soldiers need to gain maturity and clinical experience before
being sent to X2 training. (circle one) (152)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

Comments: _____

47) Please indicate your agreement with the following statement:
Sending soldiers to X2 training immediately after advanced
individual training would remove a valuable career incentive for
young soldiers. (circle one). (153)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

48) Please indicate your agreement with the following statement:
Decreasing course length would compromise the quality of X2
training. (circle one) (154)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

49) Please indicate your agreement with the following statements
regarding an AHS developed, on-the-job, hygiene training program:

A. The program would compromise the quality of X2 training. Not
all program sites would receive the same quality of instruction.
(circle one) (155)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. The program would not be attractive to 91Es. (circle one)(156)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. The program would place too much pressure on soldiers--clinic productivity and school requirements would conflict. (circle one)
(157)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. The program would place too much of a burden on the parent
DENTAC. (circle one) (158)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

50) If a shortage of X2 graduates existed, how would you remedy the problem? Please rank order the options below (place 1 by your first choice, 2 by your second choice, etc.)

___ Send selected soldiers directly from advanced individual training to X2 training. (159)

___ Increase the number of classes sent to the current X2 training program. (160)

___ Decrease the course content of the current X2 training program so more classes could be trained. (161)

___ Develop a program that would provide X2 training to soldiers at their current assignment. (162)

___ Hire more civilian dental hygienists. (163)

___ Give warrant officer rank to hygienists and recruit licensed dental hygienists for Army careers. (164)

___ Other. (please explain) _____ (165)

51) Please indicate your agreement with the following statement: Unit commanders are reluctant to send their best 91Es to X2 training because X2 graduates are not returned to their parent DENTAC. (circle one) (166)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

52) Please indicate your agreement with the following statement:
Unit commanders are reluctant to send their bes'. 91Es to X2
training because after X2 graduates return to their parent
DENTAC, they are often placed on levy for overseas assignments
within a year. (circle one) (167)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

53) Please indicate your agreement with the following statement:
The quality of hygiene services provided by X2 graduates is
substandard. (circle one) (168)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

54) Please indicate your agreement with the following statement:
The Army Dental Corps should feel obligated to provide hygiene
services to soldiers and their families by licensed dental
hygienists. (circle one) (169)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

UTILIZATION

55) How many X2 graduates in grades E3-E5 currently assigned to your clinic are used in the following roles? If part-time, indicate the percent of time spent in the given role.

	Full- time	Part- time	% of time in part- time role
a. Dental Hygienist	— —	— —	% (170-171, 172-173, 174-175)
b. X-ray technician	— —	— —	% (176-177, 178-179, 180-181)
c. Dental Therapy Assistant (performs expanded functions such as placing and carving restora- tions)	— —	— —	% (182-183, 184-185, 186-187)
d. Dental Assistant (no expanded functions allowed)	— —	— —	% (188-189, 190-191, 192-193)
e. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.)	— —	— —	% (194-195, 196-197, 198-199)

56) How many X2 graduates in grades E6 and above currently assigned to your clinic are used in the following roles? If part-time, indicate the percent of time in the given role.

	Full- time	Part- time	% of time in part- time role
a. Dental Hygienist	— —	— —	— — % (200-201, 202-203, 204-205)
b. X-ray technician	— —	— —	— — % (206-207, 208-209, 210-211)
c. Dental Therapy Assistant (performs expanded functions such as placing and carving restorations)	— —	— —	— — % (212-213, 214-215, 216-217)
d. Dental Assistant (no expanded functions allowed)	— —	— —	— — % (218-219, 220-221, 222-223)
e. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.)	— —	— —	— — % (224-225, 226-227, 228-229)

57) What skills in an X2 graduate do you most value? (circle one)
(230)

- a. hygiene skills
- b. expanded function skills
- c. both

58) Are any X2 graduates currently assigned to your clinic placing and carving dental restorations? (circle one) (231)

- a. No. I feel they are inadequately trained to do it.
- b. No. They feel they are inadequately trained to do it.
- c. No. Dentists assigned to the clinic are opposed to it.
- d. No. They are assigned full-time to non-patient care duties (Admin, supply, NCOIC, field unit, etc.).
- e. No. Although I feel they are adequately trained to do it, they are assigned full-time to other patient care duties.
- f. Yes.
- g. There are no X2s assigned to this clinic.

59) How many enlisted personnel without X2 training do you have performing the following duties in your clinic?

	Full- time	Part- time	
a. Dental Hygienist	— —	— —	(232-233, 234-235)
b. Dental Therapy Assistant (performs expanded functions such as placing and carving restorations)	— —	— —	(236-237, 238-239)

60) How frequently would an X2 assigned to patient care duties in your clinic do the following procedures. (check one).

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
a. Screening exams	—	—	—	—	—	(240)
b. Blood pressure recording	—	—	—	—	—	(241)
c. Intraoral x-rays	—	—	—	—	—	(242)
d. Panoramic x-rays	—	—	—	—	—	(243)
e. Adult prophylaxis	—	—	—	—	—	(244)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
f. Child prophylaxis	___	___	___	___	___	(245)
g. Applying Topical Fluoride	___	___	___	___	___	(246)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(247)
i. Individual Oral Health Counseling	___	___	___	___	___	(248)
j. Group Oral Health Counseling	___	___	___	___	___	(249)
k. Sealant Application	___	___	___	___	___	(250)
l. Place and Carve 1 Surface Amalgams	___	___	___	___	___	(251)
m. Place and Carve 2 Surface Amalgams	___	___	___	___	___	(252)
n. Place and Carve 3 or more sur- face amalgams	___	___	___	___	___	(253)
o. Simple Composite Restorations	___	___	___	___	___	(254)
p. Complex Composite Restorations	___	___	___	___	___	(255)
q. Acid Etch	___	___	___	___	___	(256)
r. Temporary Res- torations	___	___	___	___	___	(257)
s. Polish Restor- ations	___	___	___	___	___	(258)
t. Place an inter- mediate base	___	___	___	___	___	(259)
u. Rubber Dam appli- cation	___	___	___	___	___	(260)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
v. Periodontal Scaling	—	—	—	—	—	(261)
w. Taking Dental Im- pressions	—	—	—	—	—	(262)
x. Injecting Dental Anesthetics	—	—	—	—	—	(263)

61) Please indicate your agreement with the following statement:
Many X2 graduates are assigned to non-patient duties (Admin,
NCOIC, etc.) because of their rank or time in the Army. (circle
one)

(264)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

62) Please indicate your agreement with the following statement:
Many X2 graduates are assigned to non-patient duties (Admin,
NCOIC, etc.) because of their X2 training. (circle one)

(265)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

63) Please indicate whether you have a shortage of the following types of dental personnel. If so, indicate how many of each type you would need to correct the shortage and your preference for military or civilian personnel to fill those slots.

Type of Personnel	Shortage? (circle one)	Number of Full-timers Needed	Preference M=military C=civilian E=either (circle one)	
a. Dental Hygienist (for simple prophys and oral hygiene instruction)	Yes No	___ ___	M C E	(266,267- 268,269)
b. Dental Hygienist (for scaling and root planning)	Yes No	___ ___	M C E	(270,271- 272,273)
c. X-ray technician	Yes No	___ ___	M C E	(274,275- 276,277)
d. Dental Therapy Assistant (performs expanded functions such as placing and carving restora- tions)	Yes No	___ ___	M C E	(278,279- 280,281)
e. Dental Assistant (no expanded functions allowed)	Yes No	___ ___	M C E	(282,283- 284,285)
f. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.)	Yes No	___ ___	M C E	(286,287- 288,289)

64) In your clinic, to what extent do X2 DTAs affect the output of restorative services by dentists. (circle one) (290,291-292)

- a. Does not apply. This clinic has no X2 DTAs.
- b. X2 DTAs decrease productivity by ____ ____ %.
- c. X2 DTAs have no impact on productivity.
- d. X2 DTAs increase productivity by ____ ____ %.

Thank You for your Assistance!

Questionnaire for Dentists Who in their Current Assignment
are Working With or have worked with DTAs Within the Past 2
Years

Training and Utilization of X2 Personnel

Case No. _____ (1-4)

Instructions

1. Please answer each question.
2. Feel free to write any comments you have about any question.
3. When you have completed the questionnaire, you may seal it in the attached envelop to keep your answers confidential.
4. Return completed questionnaires to your project officer or project NCO.

BACKGROUND INFORMATION

1) What was your age on your last birthday? (5-6)

— —

2) What is your rank? (circle one) (7)

a. 03

b. 04

c. 05

d. 06

3) How many years since completing dental school have you been practicing dentistry? (8-9,10-11)

— years — months

4) How long have you been an Army dentist? (12-13,14-15)

— years — months

5) With how many civilian, expanded function, dental assistants (DTAs) have you worked in the past 2 years? (16-17)

— —

6) With how many military, expanded function, dental assistants (DTAs) have you worked in the past 2 years? (18-19)

— — *

*If you worked only with civilian DTAs, PLEASE SKIP to question 10.

7) How many of the military DTAs with whom you worked in the past 2 years are of rank E3-E5? (20-21)

— —

8) How many of the military DTAs with whom you worked in the past 2 years are of rank E6 and above? (22-23)

— —

9) How many military DTAs with whom you worked in the past 2 years performed expanded functions at least 50% of the time?

rank of DTA number of DTAs

a. E3-E5 — — (24-25)

b. E6 and above — — (26-27)

10) How many of the civilian DTAs with whom you worked in the past 2 years performed expanded functions at least 50% of the time? (28-29)

— —

11) How long did you work with military or civilian DTAs? (30-31,32-33)

— — years — — months *

*If you worked only with civilian DTAs, PLEASE SKIP to question 27.

12) How many of the military DTAs with whom you worked in the past 2 years are:

a. graduates of the Academy of the Health Sciences Preventive Dentistry (91EX2) 16 week course (34-35)

— —

b. graduates of the Academy of the Health Sciences Preventive Dentistry (91EX2) 48 week course (36-37)

— —

c. on-the-job trained (did not attend an X2 course) (38-39)

— —

13) Overall, how would you rate the performance of the military DTAs with whom you worked in the past 2 years? (circle one) (40)

- a. excellent
- b. very good
- c. good
- d. fair
- e. poor

14) Did the military DTAs with whom you worked in the past 2 years measure up to your expectations for patient care quality assurance? (circle one) (41)

- a. yes
- b. no

15) How would you compare the performance of military . civilian DTAs? (circle one) (42)

- a. military much better
- b. military better
- c. same
- d. civilian better
- e. civilian much better

f. No basis to judge. I worked with only military or only civilian DTAs.

16) Is there anything the military DTAs with whom you work/ed did not learn in their schooling that should be added to the 91EX2 training program? (circle one) (43)

- a. No.
- b. Yes. Please comment: _____

17) Please indicate how well the following procedures are/were done by the military DTAs with whom you worked in the past 2 years (check one).

	Excel- lent	Very Good	Good	Fair	Poor	Never Done	
a. Screening exams	___	___	___	___	___	___	(44)
b. Blood pressure recording	___	___	___	___	___	___	(45)
c. Intraoral x-rays	___	___	___	___	___	___	(46)
d. Panoramic x-rays	___	___	___	___	___	___	(47)
e. Adult prophylaxis	___	___	___	___	___	___	(48)
f. Child prophylaxis	___	___	___	___	___	___	(49)
g. Applying Topical Fluoride	___	___	___	___	___	___	(50)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	___	(51)
i. Individual Oral Health Counseling	___	___	___	___	___	___	(52)
j. Group Oral Health Counseling	___	___	___	___	___	___	(53)
k. Sealant Application	___	___	___	___	___	___	(54)
l. Place and carve 1 Surface Amalgams	___	___	___	___	___	___	(55)
m. Place and carve 2 Surface Amalgams	___	___	___	___	___	___	(56)
n. Place and carve 3 or more surface Amalgams	___	___	___	___	___	___	(57)
o. Simple Composite Restorations	___	___	___	___	___	___	(58)
p. Complex Composite Restorations	___	___	___	___	___	___	(59)
q. Acid Etch	___	___	___	___	___	___	(60)

	Excel- lent	Very Good	Good	Fair	Poor	Never Done	
r. Temporary Res- torations	—	—	—	—	—	—	(61)
s. Polish Restor- ations	—	—	—	—	—	—	(62)
t. Place an inter- mediate base	—	—	—	—	—	—	(63)
u. Rubber Dam appli- cation	—	—	—	—	—	—	(64)
v. Periodontal Scaling	—	—	—	—	—	—	(65)
w. Taking Dental Im- pressions	—	—	—	—	—	—	(66)
x. Injecting Dental Anesthetics	—	—	—	—	—	—	(67)

18) Do you think military DTAs with whom you worked in the past 2 years received adequate training in placing and carving restorations? (circle one) (68)

- a. Yes
- b. No
- c. No opinion

19) Do you think military DTAs with whom you worked in the past 2 years received adequate training in dental hygiene? (circle one) (69)

- a. Yes
- b. No
- c. No opinion

20) Please indicate your opinion on whether the following procedures should be taught to military DTAs in 91EX2 training. (check one).

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
a. Screening exams	___	___	___	___	___	(70)
b. Blood pressure recording	___	___	___	___	___	(71)
c. Intraoral x-rays	___	___	___	___	___	(72)
d. Panoramic x-rays	___	___	___	___	___	(73)
e. Adult prophylaxis	___	___	___	___	___	(74)
f. Child prophylaxis	___	___	___	___	___	(75)
g. Applying Topical Fluoride	___	___	___	___	___	(76)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(77)
i. Individual Oral Health Counseling	___	___	___	___	___	(78)
j. Group Oral Health Counseling	___	___	___	___	___	(79)
k. Sealant Application	___	___	___	___	___	(80)
l. Place and carve 1 Surface Amalgams	___	___	___	___	___	(81)
m. Place and carve 2 Surface Amalgams	___	___	___	___	___	(82)
n. Place and carve 3 or more surface Amalgams	___	___	___	___	___	(83)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
o. Simple Composite Restorations	—	—	—	—	—	(84)
p. Complex Composite Restorations	—	—	—	—	—	(85)
q. Acid Etch	—	—	—	—	—	(86)
r. Temporary Restorations	—	—	—	—	—	(87)
s. Polish Restorations	—	—	—	—	—	(88)
t. Place an intermediate base	—	—	—	—	—	(89)
u. Rubber Dam application	—	—	—	—	—	(90)
v. Periodontal Scaling	—	—	—	—	—	(91)
w. Taking Dental Impressions	—	—	—	—	—	(92)
x. Injecting Dental Anesthetics	—	—	—	—	—	(93)

21) Please indicate your agreement with the following statement:
Soldiers need to gain maturity and clinical experience before
being sent to 91EX2 training. (circle one) (94)

- a. Strongly Agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly Disagree

Comments: _____

22) Please indicate your agreement with the following statement:
The quality of hygiene services provided by 91EX2 graduates is
substandard. (circle one) (95)

- a. Strongly Agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly Disagree

Comments: _____

23) Did the military DTAs with whom you worked in the past 2
years place and carve dental restorations: (circle one) (96)

- a. No. I felt they were inadequately trained to do it.
- b. No. They felt they were inadequately trained to do it.
- c. Yes.

24) How frequently did the military DTAs with whom you worked in
the past 2 years do the following procedures. (check one).

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
a. Screening exams	___	___	___	___	___	(97)
b. Blood pressure recording	___	___	___	___	___	(98)
c. Intraoral x-rays	___	___	___	___	___	(99)
d. Panoramic x-rays	___	___	___	___	___	(100)
e. Adult prophylaxis	___	___	___	___	___	(101)
f. Child prophylaxis	___	___	___	___	___	(102)
g. Applying Topical Fluoride	___	___	___	___	___	(103)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(104)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
i. Individual Oral Health Counseling	___	___	___	___	___	(105)
j. Group Oral Health Counseling	___	___	___	___	___	(106)
k. Sealant Application	___	___	___	___	___	(107)
l. Place and Carve 1 Surface Amalgams	___	___	___	___	___	(108)
m. Place and Carve 2 Surface Amalgams	___	___	___	___	___	(109)
n. Place and Carve 3 or more sur- face amalgams	___	___	___	___	___	(110)
o. Simple Composite Restorations	___	___	___	___	___	(111)
p. Complex Composite Restorations	___	___	___	___	___	(112)
q. Acid Etch	___	___	___	___	___	(113)
r. Temporary Res- torations	___	___	___	___	___	(114)
s. Polish Restor- ations	___	___	___	___	___	(115)
t. Place an inter- mediate base	___	___	___	___	___	(116)
u. Rubber Dam appli- cation	___	___	___	___	___	(117)
v. Periodontal Scaling	___	___	___	___	___	(118)
w. Taking Dental Im- pressions	___	___	___	___	___	(119)
x. Dental Adminis- tration	___	___	___	___	___	(120)
y. Inject Dental Anesthetic	___	___	___	___	___	(121)

25) To what extent did military DTAs with whom you worked in the past 2 years affect your output of restorative services? (circle one). (122,123-124)

- a. Military DTAs decreased productivity by ____ %.
- b. Military DTAs had no impact on productivity.
- c. Military DTAs increased productivity by ____ %.

26) With regard to your productivity (circle one): (125)

- a. Military DTAs outperform civilian DTAs.
- b. Civilian DTAs outperform military DTAs.
- c. Both perform equally.
- d. No basis to judge. I worked with only military or only civilian DTAs.

27) Please indicate your agreement with the following statement: Working with DTAs is enjoyable. (circle one). (126)

- a. Strongly Agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly Disagree

28) Why did you work with DTAs? (circle one) (127)

- a. I volunteered for the job because I wanted the experience.
- b. I volunteered for the job because I prefer working with DTAs.
- c. I did not want the job but my clinic chief assigned it to me.
- d. Other. Please explain: _____

29) At your duty station, is working with a DTA (circle one): (128)

a. A permanent assignment

b. A rotation

--if a rotation, how long is the rotation?

___ ___ weeks (129,130)

___ ___ mos. (131,132)

--the frequency of the rotation is once every?

___ ___ weeks (133,134)

___ ___ mos. (135,136)

___ ___ yrs. (137,138)

30. Which do you prefer: (circle one) (139)

a. Working with DTAs

b. Working with regular assistants

31) Please indicate your agreement with the following statement:
Working with DTAs is more stressful than working with a regular
assistant. (circle one). (140)

a. Strongly Agree

b. Agree

c. No opinion

d. Disagree

e. Strongly Disagree

32) Did you work with a DTA as part of your dental school
training? (circle one) (141)

a. Yes

b. No

33) Please indicate your agreement with the following statement:
In the clinic where I work there are an adequate number of dental
hygienists. (circle one). (142)

- a. Strongly Agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly Disagree

Thank you for your assistance!

Questionnaire for Potential X2 Students
Training and Utilization of X2 Personnel

Case No. _____ (1-4)

Instructions

1. Please answer each question.
2. Feel free to write any comments you have about any question.
3. When you have completed the questionnaire, you may seal it in the attached envelop to keep your answers confidential.
4. Return completed questionnaires to your project officer or project NCO.

BACKGROUND INFORMATION

1) What was your age on your last birthday? (5-6)
— —

2) Are you: (circle one) (7)

a. Male

b. Female

*3) Which do you consider yourself: (circle one) (8)

a. White

b. Black

c. Hispanic

d. Other

*Information is requested for statistical purposes only.

4) What is the highest level of civilian education you have completed: (circle one): (9)

a. grade school

b. some high school

c. high school grad

d. high school GED

e. some college

f. college grad

g. graduate school

5) Please indicate what military education you have completed and in what year you graduated.

Course	Completed? (circle one)		Year of Graduation		
a. Dental Specialist Basic (91E10)	Yes	No	19	___	(10,11-12)
b. Preventive Dentistry Specialist (91EX2)	Yes	No	19	___	(13,14-15)
c. Dental Laboratory Specialist Basic (42D10/20)	Yes	No	19	___	(16,17-18)
d. Dental Laboratory Specialist Advanced (42D30)	Yes	No	19	___	(19,20-21)
e. Dental Administration	Yes	No	19	___	(22,23-24)
f. Primary Leadership Development Course (PLDC)	Yes	No	19	___	(25,26-27)
g. Basic Noncommissioned Officers Course (BNOC)	Yes	No	19	___	(28,29-30)

6) What is your rank? (circle one) (31)

- a. E1
- b. E2
- c. E3
- d. E4
- e. E5

7) How long have you been on active duty? (32-33,34-35)

___ yrs. ___ mos.

8) What is your Army GT or ST score? (36-38)

9) In what year did you take the Army GT or ST test? (39-40)

19__

10) Do you plan to make the Army a career? (circle one) (41)

a. Yes

b. No

c. Not sure

11) What is your ETS date? (42-43,44-45)

__ __ (month) 19__ __ (year)

12) Do you plan to re-enlist? (circle one) (46)

a. Yes

b. No

c. No, but I do plan to join a reserve or national guard unit.

d. Don't know

13) Do you plan to apply for Preventive Dentistry Specialist training (91EX2)? (circle one) (47)

a. Yes

b. No

c. Not sure

14) Would you favor an X2 course that would qualify graduates to take a state board for a dental hygiene license? (circle one) (48)

a. Yes

b. No

c. No opinion

15) Would you be in favor of a separate enlisted MOS for state licensed dental hygienists? (circle one) (49)

- a. Yes
- b. No
- c. No opinion

16) If you had a state license in dental hygiene and could be promoted to any enlisted rank, would you be content working as a dental hygienist for the remainder of your military career? (50)
(circle one)

- a. Yes
- b. No
- c. No opinion

Comments: _____

17) If the rank of licensed dental hygienists was limited to E6, what would you do once you were promoted to E6: (circle one) (51)

- a. I would continue practicing dental hygiene in the Army until I retired.
- b. I would leave the service and get a civilian dental hygiene job.
- c. I would change my primary MOS to whatever would better my chances for promotion to E7 and above.
- d. Other. Please explain: _____

18) Would you apply for X2 training if it were lengthened from 16 weeks to one or two years? (circle one) (52)

- a. Yes
- b. No
- c. Not sure

19) How do you think a longer program (1 to 2 years) would influence the decision of 91Es to apply for X2 training? (circle one) (53)

a. It would have no impact at all. About the same number of people would apply for X2 training.

b. Fewer people would apply. Soldiers would not want to spend that much time in training.

c. More people would apply. X2 training would be viewed as more desirable.

d. Other. (please explain) _____

20) In your opinion, how would eligibility to take a state board in dental hygiene impact on applications for X2 training? (circle one) (54)

a. It would have no impact at all. About the same number of people would apply for X2 training.

b. Fewer people would apply. Soldiers would not want to have a dental hygiene license.

c. Fewer people would apply. Not many soldiers would be able to meet the educational requirements for entry into X2 training.

d. More people would apply. X2 training would be viewed as more desirable.

e. Other. (please explain) _____

21) Please indicate your agreement with the following statement: X2 graduates who earn a state dental hygiene license would probably leave the Army after they have completed their service for training obligation. (circle one) (55)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

22) Please indicate your agreement with the following statement:
Graduates of X2 training should be restricted to hygiene or
expanded duty functions for the remainder of their service
careers. (circle one) (56)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

23) Please indicate your agreement with the following
statements:

A. Selected soldiers should be sent directly from advanced
individual training to X2 training. (circle one) (57)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. The number of classes in the current X2 training program
should be increased. (circle one) (58)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. The length and course content of the current X2 training program should be decreased so more classes can be trained. (circle one) (59)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. The Academy of the Health Sciences should develop a program that would provide X2 training to soldiers at their current assignment. (circle one) (60)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

24) What duties do you currently perform? (circle as many as apply)

- a. Dental Hygienist (61)
- b. X-ray technician (62)
- c. Dental Therapy Assistant (performs expanded functions such as placing and carving fillings) (63)
- d. Dental Assistant (no expanded functions allowed) (64)
- e. Non-patient care duties (Admin., NCOIC, supply, field unit, etc.) (65)

25) What percentage of your time is spent in the following duties:

Duties	Percent of time
a. providing patient care	___ ___ ___% (66-68)
b. non-patient care duties (admin., NCOIC, supply, field unit, etc.)	___ ___ ___% (69-71)

26) Please indicate how frequently you are allowed to do the following procedures in your current job.

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
a. Screening exams	___	___	___	___	___	(72)
b. Blood pressure recording	___	___	___	___	___	(73)
c. Intraoral x-rays	___	___	___	___	___	(74)
d. Panoramic x-rays	___	___	___	___	___	(75)
e. Adult prophylaxis	___	___	___	___	___	(76)
f. Child prophylaxis	___	___	___	___	___	(77)
g. Applying Topical Fluoride	___	___	___	___	___	(78)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(79)
i. Individual Oral Health Counseling	___	___	___	___	___	(80)
j. Group Oral Health Counseling	___	___	___	___	___	(81)
k. Sealant Application	___	___	___	___	___	(82)
l. Place and Carve 1 Surface Amalgams	___	___	___	___	___	(83)
m. Place and Carve 2 Surface Amalgams	___	___	___	___	___	(84)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
n. Place and Carve 3 or more sur- face amalgams	___	___	___	___	___	(85)
o. Simple Composite Restorations	___	___	___	___	___	(86)
p. Complex Composite Restorations	___	___	___	___	___	(87)
q. Acid Etch	___	___	___	___	___	(88)
r. Temporary Res- torations	___	___	___	___	___	(89)
s. Polish Restor- ations	___	___	___	___	___	(90)
t. Place an inter- mediate base	___	___	___	___	___	(91)
u. Rubber Dam appli- cation	___	___	___	___	___	(92)
v. Periodontal Scaling	___	___	___	___	___	(93)
w. Taking Dental Im- pressions	___	___	___	___	___	(94)
x. Dental Adminis- tration	___	___	___	___	___	(95)
y. Inject Dental Anesthetic	___	___	___	___	___	(96)

27) Have you received any on-the-job training in: (check yes or no for each procedure)

- | | | | |
|---------------------------------|-----|----|------|
| a. dental hygiene | Yes | No | (97) |
| b. placing and carving fillings | Yes | No | (98) |

28) How would you rate your on-the-job training (OJT) in: (check one rating for each job)

	no OJT	Excellent	Good	Fair	Poor	
a. dental hygiene	___	___	___	___	___	(99)
b. placing and carving fillings	___	___	___	___	___	(100)

29) Are you currently assigned to: (circle one) (101)

a. a clinic (if so, please name: _____)

b. headquarters staff

c. field unit (if so, please name: _____)

30) Where are you currently assigned? (circle one) (102)

a. CONUS

b. OCONUS

31) What DENTAC are you assigned to: (circle one)

(103-104)

United States

a. Alaska	j. Drum	s. Knox	bb. Polk
b. Belvoir	k. Eustis	t. Leonard Wood	cc. Presidio of SF
c. Benning	l. Fitzsimmons	u. Leavenworth	dd. Redstone
d. Bliss	m. Gordon	v. Lee	ee. Riley
e. Bragg	n. Hawaii	w. Lewis	ff. Rucker
f. Campbell	o. Hood	x. McClelland	gg. Sam Houston
g. Carson	p. Huachuca	y. Meade	hh. Sill
h. Devens	q. Irwin	z. Monmouth	ii. Stewart
i. Dix	r. Jackson	aa. Ord	jj. Walter Reed
			kk. West

Overseas

ll. Augsburg	ss. Korea
mm. Bad Cannstatt	tt. Landstuhl
nn. Berlin	uu. Nuernberg
oo. Bremerhaven	vv. Panama
pp. Frankfurt	ww. Vicenza
qq. Heidelberg	xx. Wuerzburg
rr. Japan	

32) If you are assigned to a Detachment in your Dentac, please name:

_____ Detachment (105-107)

33) How long did it take to fill out this form?

_____ Minutes (108-109)

34) Please give the question number of any questions that were unclear. _____ (110)

Thank You for your assistance!

Questionnaire for X2 Graduates

Training and Utilization of X2 Personnel

Case No. _____ (1-4)

Instructions

1. Please answer each question.
2. Feel free to write any comments you have about any question.
3. When you have completed the questionnaire, you may seal it in the attached envelop to keep answers confidential.
4. Return completed questionnaires to your project officer or project NCO.

BACKGROUND INFORMATION

1) What was your age on your last birthday? (5-6)

— —

2) Are you (circle one): (7)

a. Male

b. Female

*3) Which do you consider yourself (circle one): (8)

a. White

b. Black

c. Hispanic

d. Other

*Information is requested for statistical purposes only.

4) What is the highest level of civilian education you have completed (circle one): (9)

a. grade school

b. some high school

c. high school grad

d. high school GED

e. some college

f. college grad

e. graduate school

5) Please indicate what military education you have completed and in what year you graduated.

Course	Completed? (circle one)	Year of Graduation
a. Dental Specialist Basic (91E10)	Yes No	19 ____ ____ (10,11-12)
b. Preventive Dentis- try Specialist (Academy not on the job trained) (91EX2)	Yes No	19 ____ ____ (13,14-15)
c. Dental Laboratory Specialist Basic (42D10/20)	Yes No	19 ____ ____ (16,17-18)
d. Dental Laboratory Specialist Advanced (42D30)	Yes No	19 ____ ____ (19,20-21)
e. Dental Adminis- tration	Yes No	19 ____ ____ (22,23-24)
f. Primary Leadership Development Course (PLDC)	Yes No	19 ____ ____ (25,26-27)
g. Basic Noncommission- ed Officers Course (BNOC)	Yes No	19 ____ ____ (28,29-30)
h. Advanced Noncommis- sioned Officers Course (ANOC)	Yes No	19 ____ ____ (31,32-33)
i. First Sergeants Course	Yes No	19 ____ ____ (34,35-36)
j. Sergeant Major Academy	Yes No	19 ____ ____ (37,38-39)

6) What is your rank? (circle one)

(40)

a. E1

b. E2

c. E3

d. E4

e. E5

f. E6

g. E7

h. E8

i. E9

7) How many years have you been on active duty?

(41-42)

____ Years

8) What is your Army GT or ST score?

(43-45)

9) In what year did you take the Army GT or ST test?

(46-47)

19 ____

10) Are you eligible to take a dental hygiene licensing board?
(circle one)

(48)

a. Yes

b. No

c. Don't know

11) Have you passed the national board in dental hygiene? (circle one)

(49)

a. Yes.

b. No.

12) Have you passed a state dental hygiene board? (circle one)
(50)

a. Yes, I passed the dental hygiene board in the state of:
(51-52)

b. No

13) What is your ETS date? (give month and year) (53-54,55-56)

____ (month) 19 ____ (year)

14) Do you plan to re-enlist? (circle one) (57)

a. Yes

b. No, but I do plan to join a reserve or national guard unit.

c. No

d. Don't know

TRAINING

15) What year did you graduate from the X2 course? (58-59)

19 ____

16) How long was the X2 course when you attended it (circle one):
(60)

a. 16 weeks

b. 48 weeks

c. other (please specify) _____

17) Overall, how would you rate the quality of instruction you received in the X2 course? (circle one) (61)

- a. excellent
- b. very good
- c. good
- d. fair
- e. poor

18) What did you think of the pace of the X2 course? (circle one) (62)

- a. Too slow. Course material could have been covered in a shorter period of time.
- b. Just right.
- c. Too quick. Course material was presented at a pace that made it difficult to learn.

19) Please indicate how well the following procedures were taught in the X2 training you received (check one).

	Excel- lent	Very Good	Good	Fair	Poor	Not Taught	
a. Screening exams	___	___	___	___	___	___	(63)
b. Blood pressure recording	___	___	___	___	___	___	(64)
c. Intraoral x-rays	___	___	___	___	___	___	(65)
d. Panoramic x-rays	___	___	___	___	___	___	(66)
e. Adult prophylaxis	___	___	___	___	___	___	(67)
f. Child prophylaxis	___	___	___	___	___	___	(68)
g. Applying Topical Fluoride	___	___	___	___	___	___	(69)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	___	(70)
i. Individual Oral Health Counseling	___	___	___	___	___	___	(71)

	Excel- lent	Very Good	Good	Fair	Poor	Not Taught	
j. Group Oral Health Counseling	—	—	—	—	—	—	(72)
k. Sealant Application	—	—	—	—	—	—	(73)
l. Place and carve 1 Surface Amalgams	—	—	—	—	—	—	(74)
m. Place and carve 2 Surface Amalgams	—	—	—	—	—	—	(75)
n. Place and carve 3 or more surface Amalgams	—	—	—	—	—	—	(76)
o. Simple Composite Restorations	—	—	—	—	—	—	(77)
p. Complex Composite Restorations	—	—	—	—	—	—	(78)
q. Acid Etch	—	—	—	—	—	—	(79)
r. Temporary Res- torations	—	—	—	—	—	—	(80)
s. Polish Restor- ations	—	—	—	—	—	—	(81)
t. Place an inter- mediate base	—	—	—	—	—	—	(82)
u. Rubber Dam appli- cation	—	—	—	—	—	—	(83)
v. Periodontal Scaling	—	—	—	—	—	—	(84)
w. Taking Dental Im- pressions	—	—	—	—	—	—	(85)
x. Injecting Dental Anesthetics	—	—	—	—	—	—	(86)

20) Was there anything the X2 course did not cover that it should have? (circle one) (87)

a. No.

b. Yes. Please comment: _____

21) What did you think of the content of the X2 course? (circle one) (88)

a. Just right. Course material was relevant and useful.

b. Too limited. More topics should have been covered. (please explain) _____

c. Too broad. Certain topics should be dropped. (please explain) _____

22) Do you think the current X2 course of 16 weeks provides adequate training in placing and carving restorations? (circle one) (89)

a. Yes.

b. No.

c. No opinion.

23) Do you think the current X2 course of 16 weeks provides adequate training in dental hygiene? (circle one) (90)

a. Yes.

b. No.

c. No opinion.

24) Would you favor lengthening X2 training to provide more skill development in expanded functions and hygiene (e.g. scaling and root planing) ? (circle one) (91)

a. Yes.

b. No.

c. No opinion.

If yes, how long should the X2 course be? _____ (92-93)

25) Would you favor lengthening X2 training to one or two years to provide more skill development in expanded functions and hygiene (e.g. scaling and root planing) ? (circle one) (94)

- a. Yes.
- b. No.
- c. No opinion.

26) In your opinion, how would longer X2 training (1 to 2 years) impact on applications for X2 training? (circle one) (95)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to spend that much time in training.
- c. More people would apply. X2 training would be viewed as more desirable.
- d. Other. (please explain): _____

27) Would you favor an X2 course that would qualify graduates to take a state board for a dental hygiene license? (circle one)(96)

- a. Yes.
- b. No.
- c. No opinion.

28) In your opinion, how would eligibility to take a state board in dental hygiene impact on applications for X2 training? (circle one) (97)

- a. It would have no impact at all. About the same number of people would apply for X2 training.
- b. Fewer people would apply. Soldiers would not want to have a dental hygiene license.
- c. Fewer people would apply. Not many soldiers would be able to meet the educational requirements for entry into X2 training.
- d. More people would apply. X2 training would be viewed as more desirable.
- e. Other. (please explain): _____

29) Please indicate your agreement with the following statement:
X2 graduates who earn a state dental hygiene license would
probably leave the Army after they have completed their service
for training obligation. (circle one) (98)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

30) Would you be in favor of a separate enlisted MOS for state
licensed dental hygienists? (circle one) (99)

- a. Yes
- b. No
- c. No opinion

31) If you had a state license in dental hygiene and could be
promoted to any enlisted rank, would you be content working as a
dental hygienist for the remainder of your military career?
(circle one) (100)

- a. Yes
- b. No
- c. No opinion

Comments: _____

32) If the rank of licensed dental hygienists was limited to E6,
what would you do once you were promoted to E6: (circle one)(101)

- a. I would continue practicing dental hygiene in the Army until I
retired.
 - b. I would leave the service and get a civilian dental hygiene
job.
 - c. I would change my primary MOS to whatever would better my
chances for promotion to E7 and above.
 - d. Other. (Please explain): _____
-

33) Do you think X2 training should continue to teach placement and carving of fillings? (circle one) (102)

a. Yes.

b. No.

c. No opinion.

34) Please indicate your opinion on whether the following procedures should be taught to students in X2 training. (check one).

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
a. Screening exams	___	___	___	___	___	(103)
b. Blood pressure recording	___	___	___	___	___	(104)
c. Intraoral x-rays	___	___	___	___	___	(105)
d. Panoramic x-rays	___	___	___	___	___	(106)
e. Adult prophylaxis	___	___	___	___	___	(107)
f. Child prophylaxis	___	___	___	___	___	(108)
g. Applying Topical Fluoride	___	___	___	___	___	(109)
h. Directing Group Self-Applied Top- ical Fluoride	___	___	___	___	___	(110)
i. Individual Oral Health Counseling	___	___	___	___	___	(111)
j. Group Oral Health Counseling	___	___	___	___	___	(112)
k. Sealant Application	___	___	___	___	___	(113)

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion	
l. Place and carve 1 Surface Amalgams	___	___	___	___	___	(114)
m. Place and carve 2 Surface Amalgams	___	___	___	___	___	(115)
n. Place and carve 3 or more surface Amalgams	___	___	___	___	___	(116)
o. Simple Composite Restorations	___	___	___	___	___	(117)
p. Complex Composite Restorations	___	___	___	___	___	(118)
q. Acid Etch	___	___	___	___	___	(119)
r. Temporary Res- torations	___	___	___	___	___	(120)
s. Polish Restor- ations	___	___	___	___	___	(121)
t. Place an inter- mediate base	___	___	___	___	___	(122)
u. Rubber Dam appli- cation	___	___	___	___	___	(123)
v. Periodontal Scaling	___	___	___	___	___	(124)
w. Taking Dental Im- pressions	___	___	___	___	___	(125)
x. Injecting Dental Anesthetics	___	___	___	___	___	(126)

35) Please indicate your agreement with the following statement:
The Army should offer two levels of hygiene training called X2
and Advanced X2. X2 training would teach simple oral hygiene
measures such as prophys and oral hygiene instruction. Completion
of X2 training and clinical experience would be requirements for
Advanced X2 training. Advanced X2 training would teach more
advanced oral hygiene measures such as scaling and root planing.
(circle one) (127)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

36) Please indicate your agreement with the following statement:
Graduates of Advanced X2 training should be restricted to hygiene
or expanded duty functions for the remainder of their service
careers. (circle one) (128)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

37) Several options have been suggested to correct the shortage
of X2 graduates in military dental clinics. Please indicate your
agreement with the following options.

A. Send selected soldiers directly from advanced individual
training to X2 training. (circle one) (129)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. Increase the number of classes in the current X2 training program. (circle one) (130)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. Decrease the length and content of the current X2 training program so more classes could be trained. (circle one) (131)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. Have the Academy of the Health Sciences (AHS) develop a program that would provide standardized X2 training to soldiers at their current assignment (on-the-job training). (circle one) (132)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

E. Do you have another idea for correcting the shortage of X2s?
(133)

a. No

b. Yes

Please explain: _____

38) Please indicate your agreement with the following statement:
Soldiers need to gain maturity and clinical experience before
being sent to X2 training. (circle one) (134)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

Comments: _____

39) Please indicate your agreement with the following statement:
Sending soldiers to X2 training immediately after advanced
individual training would remove a valuable career incentive for
young soldiers. (circle one) (135)

a. Strongly agree

b. Agree

c. No opinion

d. Disagree

e. Strongly disagree

Comments: _____

40) Please indicate your agreement with the following statement:
Decreasing course length would compromise the quality of X2
training. (circle one) (136)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

41) Please indicate your agreement with the following statements
regarding an AHS developed, on-the-job, hygiene training program:

A. The program would compromise the quality of X2 training. Not
all program sites would receive the same quality of instruction.
(circle one) (137)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

B. The program would not be attractive to 91Es. (circle one)(138)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

C. The program would place too much pressure on soldiers--clinic productivity and school requirements would conflict. (circle one)
(139)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

D. The program would place too much of a burden on the parent DENTAC. (circle one)
(140)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

42) Please indicate your agreement with the following statement:
Unit commanders are reluctant to send their best 91Es to X2 training because X2 graduates are not returned to their parent DENTAC. (circle one)
(141)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

Comments: _____

43) If a shortage of X2 graduates existed, how would you remedy the problem? Please rank order the options below (place 1 by your first choice, 2 by your second choice, etc.)

___ Send selected soldiers directly from advanced individual training to X2 training. (142)

___ Increase the number of classes sent to the current X2 training program. (143)

___ Decrease the course content of the current X2 training program so more classes could be trained. (144)

___ Develop a program that would provide X2 training to soldiers at their current assignment. (145)

___ Other. (please explain) _____ (146)

UTILIZATION

44) In your first assignment after completing X2 training, what duties did you perform? (circle as many as apply)

a. Dental Hygienist (147)

b. X-ray technician (148)

c. Dental Therapy Assistant (performs expanded functions such as placing and carving restorations) (149)

d. Dental Assistant (no expanded functions allowed) (150)

e. Non-patient care duties (Admin, NCOIC, supply, field unit, etc.) (151)

45) In your first assignment after X2 training, what percentage of your time was spent in the following duties:

Duties	Percent of time	
a. providing patient care	___ %	(152-154)
b. non-patient care duties (admin, NCOIC, supply, field unit, etc.)	___ %	(155-157)

46) Counting all of your assignments since completing X2 training, how much of your time (in years) has been spent in the following duties:

Duties	Number of Years	
a. providing patient care	___ yrs.	(158-159)
b. non-patient care duties (admin, NCOIC, supply, field unit etc.)	___ yrs.	(160-161)

47) At your first assignment after X2 training did you place and carve dental restorations? (circle one) (162)

- a. No. My commander or clinic chief did not approve.
- b. No. I felt I was inadequately trained to do it.
- c. No. Dentists I worked with were opposed to it.
- d. No. I had no opportunity to do it. I was assigned full-time to non-patient care duties.
- e. No. Although my commander did not disapprove, I had no opportunity to do it. I was assigned full-time to other patient care duties.
- f. No. I had no opportunity to do it because I was assigned to a field unit.
- g. Yes.

48) Please indicate how frequently you were allowed to do the following procedures in your first assignment following X2 training. (check one).

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
a. Screening exams	___	___	___	___	___	(163)
b. Blood pressure recording	___	___	___	___	___	(164)
c. Intraoral x-rays	___	___	___	___	___	(165)
d. Panoramic x-rays	___	___	___	___	___	(166)
e. Adult prophylaxis	___	___	___	___	___	(167)
f. Child prophylaxis	___	___	___	___	___	(168)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
g. Applying Topical Fluoride	—	—	—	—	—	(169)
h. Directing Group Self-Applied Top- ical Fluoride	—	—	—	—	—	(170)
i. Individual Oral Health Counseling	—	—	—	—	—	(171)
j. Group Oral Health Counseling	—	—	—	—	—	(172)
k. Sealant Application	—	—	—	—	—	(173)
l. Place and Carve 1 Surface Amalgams	—	—	—	—	—	(174)
m. Place and Carve 2 Surface Amalgams	—	—	—	—	—	(175)
n. Place and Carve 3 or more sur- face amalgams	—	—	—	—	—	(176)
o. Simple Composite Restorations	—	—	—	—	—	(177)
p. Complex Composite Restorations	—	—	—	—	—	(178)
q. Acid Etch	—	—	—	—	—	(179)
r. Temporary Res- torations	—	—	—	—	—	(180)
s. Polish Restor- ations	—	—	—	—	—	(181)
t. Place an inter- mediate base	—	—	—	—	—	(182)
u. Rubber Dam appli- cation	—	—	—	—	—	(183)
v. Periodontal Scaling	—	—	—	—	—	(184)

	Never	Less than monthly	At Least once a month	At least once a week	Daily	
w. Taking Dental Im- pressions	—	—	—	—	—	(185)
x. Dental Adminis- tration	—	—	—	—	—	(186)
y. Inject Dental Anesthetic	—	—	—	—	—	(187)

49) Are you allowed to do any procedures other than the ones listed in the question above? (circle one) (188)

a. Yes. Please list: _____

b. No.

50) Please indicate whether you are credentialed by your DENTAC to perform the following procedures: (circle yes or no for each procedure)

Procedure	Procedure Code	Yes	No	
a. Adult Prophylaxis	1110	Yes	No	(189)
b. Child Prophylaxis	1120	Yes	No	(190)
c. Topical Fluoride Professional Ap- plication	1240	Yes	No	(191)
d. Topical Fluoride Self-applied Group	1245	Yes	No	(192)
e. Individual Oral Health Counseling	1330	Yes	No	(193)
f. Group Oral Health Counseling	1331	Yes	No	(194)
g. Periodontal Scaling	4342	Yes	No	(195)

51) What other procedures are you credentialed by your DENTAC to perform? Please list procedures and procedure codes. (196)

52) Please indicate your agreement with the following statement:
many X2 graduates are assigned to non-patient duties (Admin,
NCOIC, etc.) because of their rank or time in the Army. (197)
(circle one)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

53) Please indicate your agreement with the following statement:
many X2 graduates are assigned to non-patient duties (Admin,
NCOIC, etc.) because of their X2 training. (circle one) (198)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

54) Please indicate your agreement with the following statement:
many X2 graduates are assigned to non-patient duties (Admin,
NCOIC, etc.) because of their military education level. (199)
(circle one)

- a. Strongly agree
- b. Agree
- c. No opinion
- d. Disagree
- e. Strongly disagree

55) Are you currently assigned to: (circle one) (200)

- a. a clinic (if so, please name: _____)
- b. headquarters staff
- c. field unit (if so, please name: _____)

56) Where are you currently assigned? (circle one) (201)

- a. CONUS
- b. OCONUS

57) What DENTAC are you assigned to: (circle one) (202-203)

United States

- | | | | |
|-------------|----------------|-----------------|-----------------------|
| a. Alaska | j. Drum | s. Knox | bb. Polk |
| b. Belvoir | k. Eustis | t. Leonard Wood | cc. Presidio
of SF |
| c. Benning | l. Fitzsimmons | u. Leavenworth | dd. Redstone |
| d. Bliss | m. Gordon | v. Lee | ee. Riley |
| e. Bragg | n. Hawaii | w. Lewis | ff. Rucker |
| f. Campbell | o. Hood | x. McClelland | gg. Sam
Houston |
| g. Carson | p. Huachuca | y. Meade | hh. Sill |
| h. Devens | q. Irwin | z. Monmouth | ii. Stewart |
| i. Dix | r. Jackson | aa. Ord | jj. Walter
Reed |
| | | | kk. West |

Overseas

- | | |
|-------------------|---------------|
| ll. Augsburg | ss. Korea |
| mm. Bad Cannstatt | tt. Landstuhl |
| nn. Berlin | uu. Nuernberg |
| oo. Bremerhaven | vv. Panama |
| pp. Frankfurt | ww. Vicenza |
| qq. Heidelberg | xx. Wuerzburg |
| rr. Japan | |

58) If assigned to a Detachment in your Dentac, please name?
(204-206)
_____ detachment.

59) How long did it take you to fill out this form? (207-209)

___Hrs. ___Min.

60) Please give the question number of any questions that were unclear. (210)

Thank you for your assistance!



DEPARTMENT OF THE ARMY
CHIEF, DENTAL CORPS
5109 LEESBURG PIKE
FALLS CHURCH, VA 22041-3258



REPLY TO
ATTENTION OF
DASG-DC

MEMORANDUM FOR

SUBJECT: Training and Utilization of our Preventive Dentistry
Specialists (91E X2s)

1. I have asked the Dental Studies Division of the U.S. Army Health Care Studies and Clinical Investigation Activity (HCSCIA) to study the training and utilization of our preventive dentistry specialists (91E X2s). The enclosed surveys are an important part of their study. Please make sure that they are properly distributed to the appropriate personnel, completely filled out, and promptly returned to HCSCIA.

2. I am currently reviewing the entire issue of X2 training and utilization with two goals in mind. First, I want to ensure that the training program is giving you what you need -- a well trained soldier capable of helping you meet your mission. Second, I want to ensure that our training programs provide a meaningful step in the career progression of our noncommissioned officers.

3. I appreciate your participation in this survey. Your opinions are important. They will weigh heavily in my decisions on this important matter.

Encls

BILL B. LEFLER
Major General, DC
Assistant Surgeon General
Chief, Army Dental Corps

ENCLOSURE 1



DEPARTMENT OF THE ARMY
HEADQUARTERS, 7th MEDICAL COMMAND
OFFICE OF THE DEPUTY COMMANDER
APO NEW YORK 09102

REPLY TO
ATTENTION OF:

AEMDC (40)

17 May 89

MEMORANDUM FOR LTC Richard Guerin, USA Health Care Studies and
Clinical Investigation Activity, Dental Studies
Division, Fort Sam Houston, TX 78234

SUBJECT: Surveys for Training and Utilization of Preventive
Dentistry Specialists (91EX2s)

1. Enclosure 1 is a memorandum from MG Lefler requesting 7th MEDCOM dental units to conduct a survey studying the training and utilization of our preventive dentistry specialists.
2. Please mail a copy of MG Lefler's memorandum and each of the 5 survey packets to each of our 16 dental units, addresses as shown in the enclosure 2. Our commanders will return the completed surveys directly to your office.
3. I strongly support this most important survey. If you need any assistance from HQ, 7th MEDCOM on this project, please call SGM Reisig at MIL: 370-2546/2642.

2 Encls

THOMAS R. TEMPEL
Brigadier General, DC
Deputy Commander



DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY HEALTH SERVICES COMMAND
FORT SAM HOUSTON, TEXAS 78234-6000

REPLY TO
ATTENTION OF:



HSDS

5 June 1989

MEMORANDUM FOR Commander, HSC DENTAC

SUBJECT: Package of Surveys

1. Soon you will receive a package of surveys from the Dental Studies Division of the Health Care Studies and Clinical Investigation Activity. The package will contain surveys for you, your Clinic Chiefs, and other personnel in your command. Please ensure that the surveys are properly distributed, that all are filled out, and that all are returned in one package by 31 July 1989. Instructions will accompany the forms.
2. The surveys are part of a study of the training and utilization of preventive dentistry specialists (91E X2). Dental Studies is conducting this study at the request of MG Lefler.
3. Point of contact for this project is MAJ Chisick, AV 471-6028/7027.

PETER F. TAYLOR
Colonel, DC
Director of Dental Services

To: Project Officer/NCO

Subject: Letter of Instruction for Administering the X2 Training and Utilization Survey

1. PURPOSE of SURVEY

The enclosed questionnaires are part of a study on the training and utilization of enlisted preventive dentistry specialists (91E X2). MG Lefler gave a tasking to the Dental Studies Division, US Army Health Care Studies and Clinical Investigation Activity to conduct the study.

2. DUTIES of PROJECT OFFICER/NCO

As the delegated agent of your DENTAC/Detachment commander, it is your responsibility to:

- 1) distribute questionnaires to appropriate personnel,
- 2) collect questionnaires after they are completed, and
- 3) return them in one mailing NO LATER THAN 31 July to

US Army HCSCIA
Attn: HSHN-D/MAJ Chisick
Building 2268
Ft. Sam Houston, TX 78234-6060

3. HOW to ADMINISTER the SURVEY

The study is designed to collect data from 5 different groups. Questionnaires have been color-coded for each group as follows:

YELLOW- for potential X2 students i.e. enlisted soldiers in grades E1-E5 who have not been to X2 training.

BLUE- for X2 graduates i.e. enlisted soldiers who have been to 91E X2 training.

PINK- for dental clinic chiefs.

CREAM- for dentists who in their current assignment have worked with a DTA in the past 2 years.

GREEN- for DENTAC/Detachment commanders.

You have been sent questionnaires for each group based on your reply to the "Questionnaire For Attendees at HSC Senior Dental NCO Conference." A copy of your reply is enclosed in this packet for reference.

From the NCO questionnaires:

Question 4 told us how many clinic chiefs are in your DENTAC/Detachment (pink X2 questionnaires).

Question 5 told us how many enlisted soldiers in grades E1-E5 without X2 training (potential X2 students) are in your DENTAC/Detachment (yellow X2 questionnaires).

Question 6 told us how many X2 graduates are in your DENTAC/Detachment (blue X2 questionnaires).

Question 7 told us how many dentists work with military or civilian DTAs in your DENTAC/Detachment (cream X2 questionnaires).

If we have not sent you enough questionnaires, please tell us how many and which type you need.

We suggest you administer the survey to each group as follows:

1) Potential X2 Students (yellow questionnaire) This questionnaire should be given to E1-E5's who have not been to X2 training. The questions are all personal background or opinion. It should take at most 20 minutes to complete. We suggest you administer it to your E1-E5's as a group during unit training. Pass out the questionnaires, allow 20 minutes to complete them, then collect completed questionnaires. This will avoid having questionnaires lost or not filled out and will allow you to answer any questions E1-E5's may have about the survey.

2) X2 Graduates (blue questionnaire) This questionnaire should be given to enlisted soldiers who have completed X2 training. The questions are all personal background or opinion. It should take at most 50 minutes to complete. We suggest you administer it to your X2 graduates as a group during unit training. Pass out the questionnaires, allow 50 minutes to complete them, then collect completed questionnaires. This will minimize lost or unfilled questionnaires and will allow you to answer any questions X2 graduates may have about the survey.

3) Dentists who work with DTAs (cream questionnaire) This questionnaire should be completed only by dentists who in their current assignment have worked with DTAs within the past 2 years. The questions deal mostly with personal background or opinions. However, dentists may need to talk with their DTA in order to answer question 12. Therefore, we suggest you give a questionnaire to the dentist and give him a suspense to get it back to you by the end of the work day. The questionnaire should take at most 20 minutes to complete.

4) Dental Clinic Chiefs (pink questionnaire) This questionnaire is complex. It may require the clinic chief to consult with his/her NCOIC, clinic hygienists, and front desk personnel. It should take at most 2 hours to complete. Advise clinic chiefs to be as accurate as possible. Since answering some questions will require gathering data from multiple sources, we recommend that clinic commanders be given at least 2 weeks to complete the questionnaire.

5) DENTAC/Detachment Commanders (green questionnaire) This questionnaire is more complex than the others. The commander may need to consult with his/her clinic chiefs and senior NCOs in order to complete it accurately. Advise the commander that accuracy is important. Since answering some questions will require gathering data from other sources, we recommend that commanders be given at least 3 weeks to complete the questionnaire.

If you have any questions about the survey, please contact the principal investigator, MAJ Michael C. Chisick, at

AVN. 471-6028
7027
or 3331.

Appendix B
Tables and Figures

TABLE 1

SAMPLE SIZE

	<u>CONUS</u>	<u>OCONUS</u>	<u>TOTAL</u>
CMDRS	35	14	49
CHIEFS	126	89	215
DOCTORS	276	42	318
X2 GRADS	194	42	236
X2 POTENTIAL	602	224	826

Table 2

Comparison of absolute numbers of clinic personnel present and needed by All DENTAC Commanders

TYPE OF PERSONNEL	Number Present	# Extra Needed	# Extra/DENTAC
Prophy Hygiene		128	2.61
Scaling Hygiene		90	1.84
Total Hygiene	216.47	218	4.45
X-Ray		45	0.92
DTA		132	2.69
Dental Assistant		135	2.76
Administration		79	1.61
Number of respondents	44	49	

Table 3

Comparison of absolute numbers of clinic personnel present and needed by CONUS DENTAC Commanders

TYPE OF PERSONNEL	Number Present	# Extra Needed	# Extra/DENTAC
Prophy Hygiene		78	2.22
Scaling Hygiene		54	1.54
Total Hygiene	149.6	132	3.77
X-Ray		26	0.74
DTA		62	1.77
Dental Assistant		93	2.66
Administration		43	1.23
Number of respondents	31	35	

Table 4

Comparison of absolute numbers of clinic personnel present and needed by OCONUS DENTAC Commanders

TYPE OF PERSONNEL	Number Present	# Extra Needed	# Extra/ DENTAC
Prophy Hygiene		50	3.57
Scaling Hygiene		36	2.57
Total Hygiene	66.87	86	6.14
X-Ray		19	1.36
DTA		70	5.00
Dental Assistant		42	3.00
Administration		36	2.57
Number of respondents	13	14	

Table 5

Percent of optimal Hygiene staffing in DENTACs by
Assignment Location

	<u># OF HYGIENISTS</u>		OPTIMAL LEVEL (TOTAL)	PERCENT OF OPTIMAL
	# PRESENT	# REQUESTED		
OCONUS (n=13)	66.87	78	144.87	46.2 %
CONUS (n=31)	149.60	122	271.60	55.1 %
TOTAL (N=44)	216.47	200	416.47	52.0 %

KEY to ABBREVIATIONS USED IN TABLES 6-17

Abbreviation	Meaning
DHFTE	= Number of dental hygiene full-time equivalents present in a Dental Activity
POPAD	= Active duty population size
ADRATIO	= Ratio of active duty soldiers per hygienist for current staffing level of dental hygienists within a Dental Activity
ADRATIO1	= Ratio of active duty soldiers per hygienist for current staffing level of dental hygienists plus one within a Dental Activity
ADRATIO2	= Ratio of active duty soldiers per hygienist for current staffing level of dental hygienists plus two within a Dental Activity
ALLINEED	= Total number of dental hygiene full-time equivalents requested by a Dental Activity
ALLADRAT	= Ratio of active duty soldiers per hygienist for requested staffing level of dental hygienists by a Dental Activity
ADFM	= Active duty plus family member population size
ALLRATIO	= Ratio of active duty soldiers plus family members per hygienist for current staffing level of dental hygienists within a Dental Activity
ALLRATI1	= Ratio of active duty soldiers plus family members per hygienist for current staffing level of dental hygienists plus one within a Dental Activity
ALLRATI2	= Ratio of active duty soldiers plus family members per hygienist for current staffing level of dental hygienists plus two within a Dental Activity
ALLRAT	= Ratio of active duty soldiers plus family members per hygienist for requested staffing level of dental hygienists by a Dental Activity

Table 6

NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS PRESENT,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for CURRENT LEVEL, CURRENT LEVEL +1, and
CURRENT LEVEL +2 HYGIENISTS by DENTAC FOR ALL DENTACS

OBS	DENTAC	DHFTE	POPAD	ADRATIO	ADRATIO1	ADRATIO2
1	MCCLELLAN	6.04	3000	496.7	426.1	373.13
2	FITZSIMONS	2.00	1800	900.0	600.0	450.00
3	SAM HOUSTON	7.00	6500	928.6	812.5	722.22
4	JACKSON	4.60	4500	978.3	803.6	681.82
5	PRESIDIO SF	1.95	2200	1128.2	745.8	556.96
6	PANAMA	9.40	11000	1170.2	1057.7	964.91
7	REDSTONE	2.00	2500	1250.0	833.3	625.00
8	SHAPE	5.10	7486	1467.8	1227.2	1054.37
9	BLISS	14.00	21500	1535.7	1433.3	1343.75
10	BENNING	9.00	13900	1544.4	1390.0	1263.64
11	KNOX	9.00	14000	1555.6	1400.0	1272.73
12	LEAVENWORTH	3.86	6600	1709.8	1358.0	1126.28
13	MANHEIM	5.20	9000	1730.8	1451.6	1250.00
14	RUCKER	3.00	5300	1766.7	1325.0	1060.00
15	AUGSBURG	5.80	11010	1898.3	1619.1	1411.54
16	L. WOOD	5.00	9800	1960.0	1633.3	1400.00
17	DEVENS	2.00	4000	2000.0	1333.3	1000.00
18	DRUM	5.00	11000	2200.0	1833.3	1571.43
19	VICENZA	2.00	4500	2250.0	1500.0	1125.00
20	ALASKA	5.30	12000	2264.2	1904.8	1643.84
21	WALTER REED	6.50	16000	2461.5	2133.3	1882.35
22	BRAGG	16.00	40000	2500.0	2352.9	2222.22
23	DIX	1.60	4000	2500.0	1538.5	1111.11
24	LANDSTUHL	3.50	8855	2530.0	1967.8	1610.00
25	EUSTIS	3.00	8000	2666.7	2000.0	1600.00
26	STEWART	6.80	19300	2838.2	2474.4	2193.18
27	CARSON	6.70	19500	2910.4	2532.5	2241.38
28	BERLIN	2.20	6500	2954.5	2031.3	1547.62
29	NUERNBERG	10.50	33000	3142.9	2869.6	2640.00
30	LEE	1.00	3900	3900.0	1950.0	1300.00
31	RILEY	3.75	15000	4000.0	3157.9	2608.70
32	HAUCHUCA	1.70	7000	4117.6	2592.6	1891.89
33	CAMPBELL	5.00	23000	4600.0	3833.3	3285.71
34	HOOD	8.50	40000	4705.9	4210.5	3809.52
35	MEADE	5.05	24500	4851.5	4049.6	3475.18
36	ORD	4.00	20000	5000.0	4000.0	3333.33
37	KOREA 1	1.80	9061	5033.9	3236.1	2384.47
38	FRANKFURT	10.00	59000	5900.0	5363.6	4916.67
39	BAD CANNSTA	4.00	25000	6250.0	5000.0	4166.67
40	LEWIS	3.75	29500	7866.7	6210.5	5130.43
41	SILL	1.00	12000	12000.0	6000.0	4000.00
42	BELVOIR	0.60	7300	12166.7	4562.5	2807.69
43	KOREA 2	2.07	32900	15893.7	10716.6	8083.54
44	IRWIN	0.20	4400	22000.0	3666.7	2000.00

Table 7

TOTAL NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS REQUESTED,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for REQUESTED LEVELS of HYGIENISTS by DENTAC FOR
ALL DENTACS

OBS	DENTAC	ALLINEED	POPAD	ALLADRAT
1	FITZSIMONS	4.00	1800	450.00
2	MCCLELLAN	6.04	3000	496.69
3	REDSTONE	5.00	2500	500.00
4	JACKSON	6.60	4500	681.82
5	DIX	5.60	4000	714.29
6	MANHEIM	12.20	9000	737.70
7	PRESIDIO SF	2.95	2200	745.76
8	BERLIN	8.20	6500	792.68
9	RILEY	18.75	15000	800.00
10	ORD	24.00	20000	833.33
11	DRUM	13.00	11000	846.15
12	VICENZA	5.00	4500	900.00
13	SAM HOUSTON	7.00	6500	928.57
14	PANAMA	11.40	11000	964.91
15	EUSTIS	8.00	8000	1000.00
16	AUGSBURG	10.80	11010	1019.44
17	RUCKER	5.00	5300	1060.00
18	ALASKA	11.30	12000	1061.95
19	KNOX	13.00	14000	1076.92
20	NUERNBERG	29.50	33000	1118.64
21	LEAVENWORTH	5.86	6600	1126.28
22	SHAPE	6.10	7486	1227.21
23	LEE	3.00	3900	1300.00
24	STEWART	14.80	19300	1304.05
25	DEVENS	3.00	4000	1333.33
26	IRWIN	3.20	4400	1375.00
27	WALTER REED	11.50	16000	1391.30
28	BLISS	14.00	21500	1535.71
29	BENNING	9.00	13900	1544.44
30	KOREA 1	5.80	9061	1562.24
31	BRAGG	23.00	40000	1739.13
32	L. WOOD	5.00	9800	1960.00
33	LANDSTUHL	4.50	8855	1967.78
34	BELVOIR	3.60	7300	2027.78
35	BAD CANNSTA	11.00	25000	2272.73
36	HOOD	16.50	40000	2424.24
37	MEADE	10.05	24500	2437.81
38	CARSON	7.70	19500	2532.47
39	FRANKFURT	19.00	59000	3105.26
40	KOREA 2	10.07	32900	3267.13
41	SILL	3.00	12000	4000.00
42	HAUCHUCA	1.70	7000	4117.65
43	LEWIS	6.75	29500	4370.37
44	CAMPBELL	5.00	23000	4600.00

Table 8

NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS PRESENT,
ACTIVE DUTY PLUS FAMILY MEMBER POPULATION SIZE, and RATIO of
ACTIVE DUTY SOLDIERS PLUS FAMILY MEMBERS PER HYGIENIST for
CURRENT LEVEL, CURRENT LEVEL +1, and CURRENT LEVEL +2
HYGIENISTS by DENTAC FOR ALL DENTACS

OBS	DENTAC	DHFTE	ADFM	ALLRATIO	ALLRATI1	ALLRATI2
1	MCCLELLAN	6.04	9500	1572.8	1349.4	1181.6
2	FITZSIMONS	2.00	4300	2150.0	1433.3	1075.0
3	PANAMA	9.40	23000	2446.8	2211.5	2017.5
4	SHAPE	5.10	14024	2749.8	2299.0	1975.2
5	SAM HOUSTON	7.00	21500	3071.4	2687.5	2388.9
6	PRESIDIO SF	1.95	6200	3179.5	2101.7	1569.6
7	BLISS	14.00	48500	3464.3	3233.3	3031.3
8	JACKSON	4.60	16000	3478.3	2857.1	2424.2
9	AUGSBURG	5.80	22538	3885.9	3314.4	2889.5
10	KNOX	9.00	36000	4000.0	3600.0	3272.7
11	MANHEIM	5.20	23000	4423.1	3709.7	3194.4
12	BENNING	9.00	41500	4611.1	4150.0	3772.7
13	RUCKER	3.00	14300	4766.7	3575.0	2860.0
14	LEAVENWORTH	3.86	18900	4896.4	3888.9	3225.3
15	DRUM	5.00	26000	5200.0	4333.3	3714.3
16	DEVENS	2.00	10400	5200.0	3466.7	2600.0
17	LANDSTUHL	3.50	18366	5247.4	4081.3	3339.3
18	VICENZA	2.00	10500	5250.0	3500.0	2625.0
19	REDSTONE	2.00	10500	5250.0	3500.0	2625.0
20	L. WOOD	5.00	27900	5580.0	4650.0	3985.7
21	EUSTIS	3.00	18000	6000.0	4500.0	3600.0
22	BRAGG	16.00	100000	6250.0	5882.4	5555.6
23	NUERNBERG	10.50	67400	6419.0	5860.9	5392.0
24	STEWART	6.80	44300	6514.7	5679.5	5034.1
25	ALASKA	5.30	38000	7169.8	6031.7	5205.5
26	HAUCHUCA	1.70	12700	7470.6	4703.7	3432.4
27	DIX	1.60	12000	7500.0	4615.4	3333.3
28	KOREA 1	1.80	14019	7788.3	5006.8	3689.2
29	BERLIN	2.20	17500	7954.5	5468.8	4166.7
30	CARSON	6.70	60500	9029.9	7857.1	6954.0
31	RILEY	3.75	35000	9333.3	7368.4	6087.0
32	WALTER REED	6.50	66000	10153.8	8800.0	7764.7
33	MEADE	5.05	57500	11386.1	9504.1	8156.0
34	HOOD	8.50	100000	11764.7	10526.3	9523.8
35	LEE	1.00	11800	11800.0	5900.0	3933.3
36	ORD	4.00	50000	12500.0	10000.0	8333.3
37	CAMPBELL	5.00	73000	14600.0	12166.7	10428.6
38	LEWIS	3.75	68800	18346.7	14484.2	11965.2
39	KOREA 2	2.07	41400	20000.0	13485.3	10172.0
40	BELVOIR	0.60	18300	30500.0	11437.5	7038.5
41	SILL	1.00	31000	31000.0	15500.0	10333.3
42	IRWIN	0.20	9900	49500.0	8250.0	4500.0

Table 9

TOTAL NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS REQUESTED,
ACTIVE DUTY PLUS FAMILY MEMBER POPULATION SIZE, and RATIO of
ACTIVE DUTY SOLDIERS PLUS FAMILY MEMBERS PER HYGIENIST for
REQUESTED LEVELS of HYGIENISTS by DENTAC FOR ALL DENTACS

OBS	DENTAC	DHFTE	ADFM	ALLRAT
1	FITZSIMONS	2.00	4300	1075.0
2	MCCLELLAN	6.04	9500	1572.8
3	RILEY	3.75	35000	1866.7
4	MANHEIM	5.20	23000	1885.2
5	DRUM	5.00	26000	2000.0
6	PANAMA	9.40	23000	2017.5
7	ORD	4.00	50000	2083.3
8	AUGSBURG	5.80	22538	2086.9
9	VICENZA	2.00	10500	2100.0
10	REDSTONE	2.00	10500	2100.0
11	PRESIDIO SF	1.95	6200	2101.7
12	BERLIN	2.20	17500	2134.1
13	DIX	1.60	12000	2142.9
14	EUSTIS	3.00	18000	2250.0
15	NUERNBERG	10.50	67400	2284.7
16	SHAPE	5.10	14024	2299.0
17	KOREA 1	1.80	14019	2417.1
18	JACKSON	4.60	16000	2424.2
19	KNOX	9.00	36000	2769.2
20	RUCKER	3.00	14300	2860.0
21	STEWART	6.80	44300	2993.2
22	SAM HOUSTON	7.00	21500	3071.4
23	IRWIN	0.20	9900	3093.8
24	LEAVENWORTH	3.86	18900	3225.3
25	ALASKA	5.30	38000	3362.8
26	BLISS	14.00	48500	3464.3
27	DEVENS	2.00	10400	3466.7
28	LEE	1.00	11800	3933.3
29	LANDSTUHL	3.50	18366	4081.3
30	KOREA 2	2.07	41400	4111.2
31	BRAGG	16.00	100000	4347.8
32	BENNING	9.00	41500	4611.1
33	BELVOIR	0.60	18300	5083.3
34	L. WOOD	5.00	27900	5580.0
35	MEADE	5.05	57500	5721.4
36	WALTER REED	6.50	66000	5739.1
37	HOOD	8.50	100000	6060.6
38	HAUCHUCA	1.70	12700	7470.6
39	CARSON	6.70	60500	7857.1
40	LEWIS	3.75	68800	10192.6
41	SILL	1.00	31000	10333.3
42	CAMPBELL	5.00	73000	14600.0

Table 10

NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS PRESENT,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for CURRENT LEVEL, CURRENT LEVEL +1, and
CURRENT LEVEL +2 HYGIENISTS by DENTAC FOR CONUS DENTACS

OBS	DENTAC	DHFTE	POPAD	ADRATIO	ADRATIO1	ADRATIO2
1	MCCLELLAN	6.04	3000	496.7	426.14	373.13
2	FITZSIMONS	2.00	1800	900.0	600.00	450.00
3	SAM HOUSTON	7.00	6500	928.6	812.50	722.22
4	JACKSON	4.60	4500	978.3	803.57	681.82
5	PRESIDIO SF	1.95	2200	1128.2	745.76	556.96
6	REDSTONE	2.00	2500	1250.0	833.33	625.00
7	BLISS	14.00	21500	1535.7	1433.33	1343.75
8	BENNING	9.00	13900	1544.4	1390.00	1263.64
9	KNOX	9.00	14000	1555.6	1400.00	1272.73
10	LEAVENWORTH	3.86	6600	1709.8	1358.02	1126.28
11	RUCKER	3.00	5300	1766.7	1325.00	1060.00
12	L. WOOD	5.00	9800	1960.0	1633.33	1400.00
13	DEVENS	2.00	4000	2000.0	1333.33	1000.00
14	DRUM	5.00	11000	2200.0	1833.33	1571.43
15	WALTER REED	6.50	16000	2461.5	2133.33	1882.35
16	BRAGG	16.00	40000	2500.0	2352.94	2222.22
17	DIX	1.60	4000	2500.0	1538.46	1111.11
18	EUSTIS	3.00	8000	2666.7	2000.00	1600.00
19	STEWART	6.80	19300	2838.2	2474.36	2193.18
20	CARSON	6.70	19500	2910.4	2532.47	2241.38
21	LEE	1.00	3900	3900.0	1950.00	1300.00
22	RILEY	3.75	15000	4000.0	3157.89	2608.70
23	HAUCHUCA	1.70	7000	4117.6	2592.59	1891.89
24	CAMPBELL	5.00	23000	4600.0	3833.33	3285.71
25	HOOD	8.50	40000	4705.9	4210.53	3809.52
26	MEADE	5.05	24500	4851.5	4049.59	3475.18
27	ORD	4.00	20000	5000.0	4000.00	3333.33
28	LEWIS	3.75	29500	7866.7	6210.53	5130.43
29	SILL	1.00	12000	12000.0	6000.00	4000.00
30	BELVOIR	0.60	7300	12166.7	4562.50	2807.69
31	IRWIN	0.20	4400	22000.0	3666.67	2000.00

Table 11

TOTAL NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS REQUESTED,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for REQUESTED LEVELS of HYGIENISTS by DENTAC FOR
CONUS DENTACS

ACTIVE DUTY SOLDIERS ONLY

TOTAL HYGIENISTS REQUESTED AND SERVICE POP. FIGURES

OBS	DENTAC	ALLINEED	POPAD	ALLADRAT
1	FITZSIMONS	4.00	1800	450.00
2	MCCLELLAN	6.04	3000	496.69
3	REDSTONE	5.00	2500	500.00
4	JACKSON	6.60	4500	681.82
5	DIX	5.60	4000	714.29
6	PRESIDIO SF	2.95	2200	745.76
7	RILEY	18.75	15000	800.00
8	ORD	24.00	20000	833.33
9	DRUM	13.00	11000	846.15
10	SAM HOUSTON	7.00	6500	928.57
11	EUSTIS	8.00	8000	1000.00
12	RUCKER	5.00	5300	1060.00
13	KNOX	13.00	14000	1076.92
14	LEAVENWORTH	5.86	6600	1126.28
15	LEE	3.00	3900	1300.00
16	STEWART	14.80	19300	1304.05
17	DEVENS	3.00	4000	1333.33
18	IRWIN	3.20	4400	1375.00
19	WALTER REED	11.50	16000	1391.30
20	BLISS	14.00	21500	1535.71
21	BENNING	9.00	13900	1544.44
22	BAGG	23.00	40000	1739.13
23	L. WOOD	5.00	9800	1960.00
24	BELVOIR	3.60	7300	2027.78
25	HOOD	16.50	40000	2424.24
26	MEADE	10.05	24500	2437.81
27	CARSON	7.70	19500	2532.47
28	STILL	3.00	12000	4000.00
29	HAUCHUCA	1.70	7000	4117.65
30	LEWIS	6.75	29000	4370.37
31	CAMPBELL	5.00	23000	4600.00

Table 12

NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS PRESENT,
ACTIVE DUTY PLUS FAMILY MEMBER POPULATION SIZE, and RATIO of
ACTIVE DUTY SOLDIERS PLUS FAMILY MEMBERS PER HYGIENIST for
CURRENT LEVEL, CURRENT LEVEL +1, and CURRENT LEVEL +2
HYGIENISTS by DENTAC FOR CONUS DENTACS

OBS	DENTAC	DHFTE	ADFM	ALLRATIO	ALLRATI1	ALLRATI2
1	MCCLELLAN	6.04	9500	1572.8	1349.4	1181.6
2	FITZSIMONS	2.00	4300	2150.0	1433.3	1075.0
3	SAM HOUSTON	7.00	21500	3071.4	2687.5	2388.9
4	PRESIDIO SF	1.95	6200	3179.5	2101.7	1569.6
5	BLISS	14.00	48500	3464.3	3233.3	3031.3
6	JACKSON	4.60	16000	3478.3	2857.1	2424.2
7	KNOX	9.00	36000	4000.0	3600.0	3272.7
8	BENNING	9.00	41500	4611.1	4150.0	3772.7
9	RUCKER	3.00	14300	4766.7	3575.0	2860.0
10	LEAVENWORTH	3.86	18900	4896.4	3888.9	3225.3
11	DRUM	5.00	26000	5200.0	4333.3	3714.3
12	DEVENS	2.00	10400	5200.0	3466.7	2600.0
13	REDSTONE	2.00	10500	5250.0	3500.0	2625.0
14	L. WOOD	5.00	27900	5580.0	4650.0	3985.7
15	EUSTIS	3.00	18000	6000.0	4500.0	3600.0
16	BRAGG	16.00	100000	6250.0	5892.4	5555.6
17	STEWART	6.30	44300	6514.7	5679.5	5034.1
18	HAUCHUCA	1.70	12700	7470.6	4703.7	3432.4
19	DIX	1.60	12000	7500.0	4615.4	3333.3
20	CARSON	6.70	60500	9029.9	7857.1	6954.0
21	RILEY	3.75	35000	9333.3	7368.4	6087.0
22	WALTER REED	6.50	66000	10153.8	8000.0	7764.7
23	MEADE	5.05	57500	11386.1	9504.1	8156.0
24	HOOD	8.50	100000	11764.7	10526.3	9523.8
25	LEE	1.00	11800	11800.0	5900.0	3933.3
26	ORD	4.00	50000	12500.0	10000.0	8333.3
27	CAMPBELL	5.00	73000	14600.0	12166.7	10428.6
28	LEWIS	3.75	68800	18346.7	14484.2	11965.2
29	BELVOIR	0.60	18300	30500.0	11437.5	7038.5
30	SILL	1.00	31000	31000.0	15500.0	10333.3
31	IRWIN	0.20	9900	49500.0	8250.0	4500.0

Table 13

TOTAL NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS REQUESTED,
ACTIVE DUTY PLUS FAMILY MEMBER POPULATION SIZE, and RATIO of
ACTIVE DUTY SOLDIERS PLUS FAMILY MEMBERS PER HYGIENIST for
REQUESTED LEVELS of HYGIENISTS by DENTAC FOR CONUS DENTACS

OBS DENTAC	DHFTE	ADFM	ALLRAT
1 FITZSIMONS	2.00	4300	1075.0
2 MCCLELLAN	6.04	9500	1572.8
3 RILEY	3.75	35000	1866.7
4 DRUM	5.00	26000	2000.0
5 ORD	4.00	50000	2083.3
6 REDSTONE	2.00	10500	2100.0
7 PRESIDIO SF	1.95	6200	2101.7
8 DIX	1.60	12000	2142.9
9 EUSTIS	3.00	18000	2250.0
10 JACKSON	4.60	16000	2424.2
11 KNOX	9.00	36000	2769.2
12 RUCKER	3.00	14300	2860.0
13 STEWART	6.80	44300	2993.2
14 SAM HOUSTON	7.00	21500	3071.4
15 IRWIN	0.20	9900	3093.8
16 LEAVENWORTH	3.86	18900	3225.3
17 BLISS	14.00	48500	3464.3
18 DEVENS	2.00	10400	3466.7
19 LEE	1.00	11800	3933.3
20 BRAGG	16.00	100000	4347.8
21 BENNING	9.00	41500	4611.1
22 BELVOIR	0.60	18300	5083.3
23 L. WOOD	5.00	27900	5580.0
24 MEADE	5.05	57500	5721.4
25 WALTER REED	6.50	66000	5739.1
26 HOOD	8.50	100000	6060.6
27 HAUCHUCA	1.70	12700	7470.6
28 CARSON	6.70	60500	7857.1
29 LEWIS	3.75	68800	10192.6
30 SILL	1.00	31000	10333.3
31 CAMPBELL	5.00	73000	14600.0

Table 14

NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS PRESENT,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for CURRENT LEVEL, CURRENT LEVEL +1, and
CURRENT LEVEL +2 HYGIENISTS by DENTAC FOR OCONUS DENTACS

OBS DENTAC	DHFTE	POPAD	ADRATIO	ADRATIO1	ADRATIO2
1 PANAMA	9.40	11000	1170.2	1057.7	964.91
2 SHAPE	5.10	7486	1467.8	1227.2	1054.37
3 MANHEIM	5.20	9000	1730.8	1451.6	1250.00
4 AUGSBURG	5.80	11010	1898.3	1619.1	1411.54
5 VICENZA	2.00	4500	2250.0	1500.0	1125.00
6 ALASKA	5.30	12000	2264.2	1904.8	1643.84
7 LANDSTUHL	3.50	8855	2530.0	1967.8	1610.00
8 BERLIN	2.20	6500	2954.5	2031.3	1547.62
9 NUERNBERG	10.50	33000	3142.9	2869.6	2640.00
10 KOREA 1	1.80	9061	5033.9	3236.1	2384.47
11 FRANKFURT	10.00	59000	5900.0	5363.6	4916.67
12 BAD CANNSTA	4.00	25000	6250.0	5000.0	4166.67
13 KOREA 2	2.07	32900	15893.7	10716.6	8083.54

Table 15

TOTAL NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS REQUESTED,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for REQUESTED LEVELS of HYGIENISTS by DENTAC FOR
OCONUS DENTACS

OBS DENTAC	ALLINEED	POPAD	ALLADRAT
1 MANHEIM	12.20	9000	737.70
2 BERLIN	8.20	6500	792.68
3 VICENZA	5.00	4500	900.00
4 PANAMA	11.40	11000	964.91
5 AUGSBURG	10.80	11010	1019.44
6 ALASKA	11.30	12000	1061.95
7 NUERNBERG	29.50	33000	1118.64
8 SHAPE	6.10	7486	1227.21
9 KOREA 1	5.80	9061	1562.24
10 LANDSTUHL	4.50	8855	1967.78
11 BAD CANNSTA	11.00	25000	2272.73
12 FRANKFURT	19.00	59000	3105.26
13 KOREA 2	10.07	32900	3267.13

Table 16

NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS PRESENT,
ACTIVE DUTY PLUS FAMILY MEMBER POPULATION SIZE, and RATIO of
ACTIVE DUTY SOLDIERS PLUS FAMILY MEMBERS PER HYGIENIST for
CURRENT LEVEL, CURRENT LEVEL +1, and CURRENT LEVEL +2
HYGIENISTS by DENTAC FOR OCONUS DENTACS

ACTIVE DUTY PLUS FAMILY MEMBERS

DENTAL HYGIENISTS SUPPLY AND SERVICE POP. FIGURES

OBS	DENTAC	DHFTE	ADFM	ALLRATIO	ALLRATI1	ALLRATI2
1	PANAMA	9.40	23000	2446.8	2211.5	2017.5
2	SHAPE	5.10	14024	2749.8	2299.0	1975.2
3	AUGSBURG	5.80	22538	3885.9	3314.4	2889.5
4	MANHEIM	5.20	23000	4423.1	3709.7	3194.4
5	LANDSTUHL	3.50	18366	5247.4	4081.3	3339.3
6	VICENZA	2.00	10500	5250.0	3500.0	2625.0
7	NUERNBERG	10.50	67400	6419.0	5860.9	5392.0
8	ALASKA	5.30	38000	7169.8	6031.7	5205.5
9	KOREA 1	1.80	14019	7788.3	5006.8	3689.2
10	BERLIN	2.20	17500	7954.5	5468.8	4166.7
11	KOREA 2	2.07	41400	20000.0	13485.3	10172.0

Table 17

TOTAL NUMBER OF DENTAL HYGIENE FULL-TIME EQUIVALENTS REQUESTED,
ACTIVE DUTY POPULATION SIZE, and RATIO of ACTIVE DUTY SOLDIERS
PER HYGIENIST for REQUESTED LEVELS of HYGIENISTS by DENTAC FOR
OCONUS DENTACS

OBS	DENTAC	DHFTE	ADFM	ALLRAT
1	MANHEIM	5.20	23000	1885.25
2	PANAMA	9.40	23000	2017.54
3	AUGSBURG	5.80	22538	2086.85
4	VICENZA	2.00	10500	2100.00
5	BERLIN	2.20	17500	2134.15
6	NUERNBERG	10.50	67400	2284.75
7	SHAPE	5.10	14024	2299.02
8	KOREA 1	1.80	14019	2417.07
9	ALASKA	5.30	38000	3362.83
10	LANDSTUHL	3.50	18366	4081.33
11	KOREA 2	2.07	41400	4111.22

Table 18

COMMANDERS (TOTAL)

RANK ORDER OF POLICY OPTIONS ON X2 SHORTAGE

- 1 st HIRE MORE CIVILIAN DENTAL HYGIENISTS
- 2 nd INCREASE NUMBER OF X2 CLASSES IN CURRENT PROGRAM
- 3 rd GIVE WO RANK TO HYGIENISTS AND RECRUIT LICENSED HYGIENISTS FOR ARMY CAREERS
- 4 th SEND SOLDIERS FROM AIT TO X2 TRAINING
- 5 th DEVELOP A PROGRAM PROVIDING X2 TRAINING AT CURRENT ASSIGNMENT
- 6 th DECREASE X2 COURSE CONTENT SO MORE CLASSES CAN BE TRAINED

CHIEFS (TOTAL)

RANK ORDER OF POLICY OPTIONS ON X2 SHORTAGE

- | | |
|------|--|
| 1 st | HIRE MORE CIVILIAN DENTAL HYGIENISTS |
| 2 nd | GIVE WO RANK TO HYGIENISTS AND RECRUIT
LICENSED HYGIENISTS FOR ARMY CAREERS |
| 3 rd | INCREASE NUMBER OF X2 CLASSES IN CURRENT
PROGRAM |
| 4 th | SEND SOLDIERS FROM AIT TO X2 TRAINING |
| 5 th | DEVELOP A PROGRAM PROVIDING X2 TRAINING
AT CURRENT ASSIGNMENT |
| 6 th | DECREASE X2 COURSE CONTENT SO MORE
CLASSES CAN BE TRAINED |

Figure 1

COMMANDERS

IS THERE A SHORTAGE OF DENTAL HYGIENISTS
IN THE ARMY ?

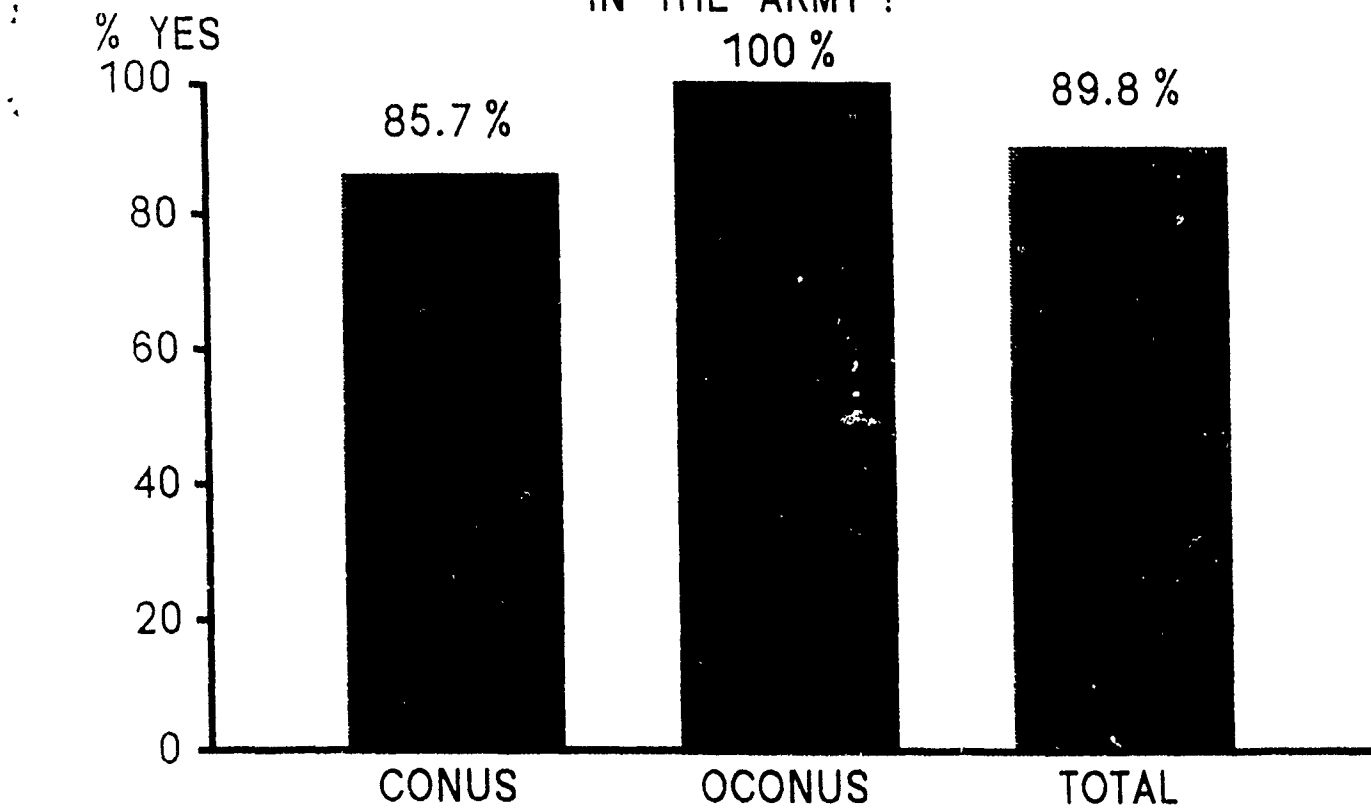


Figure 2

COMMANDERS

ADEQUATE DENTAL HYGIENISTS TO SATISFY
ACTIVE DUTY DEMAND ?

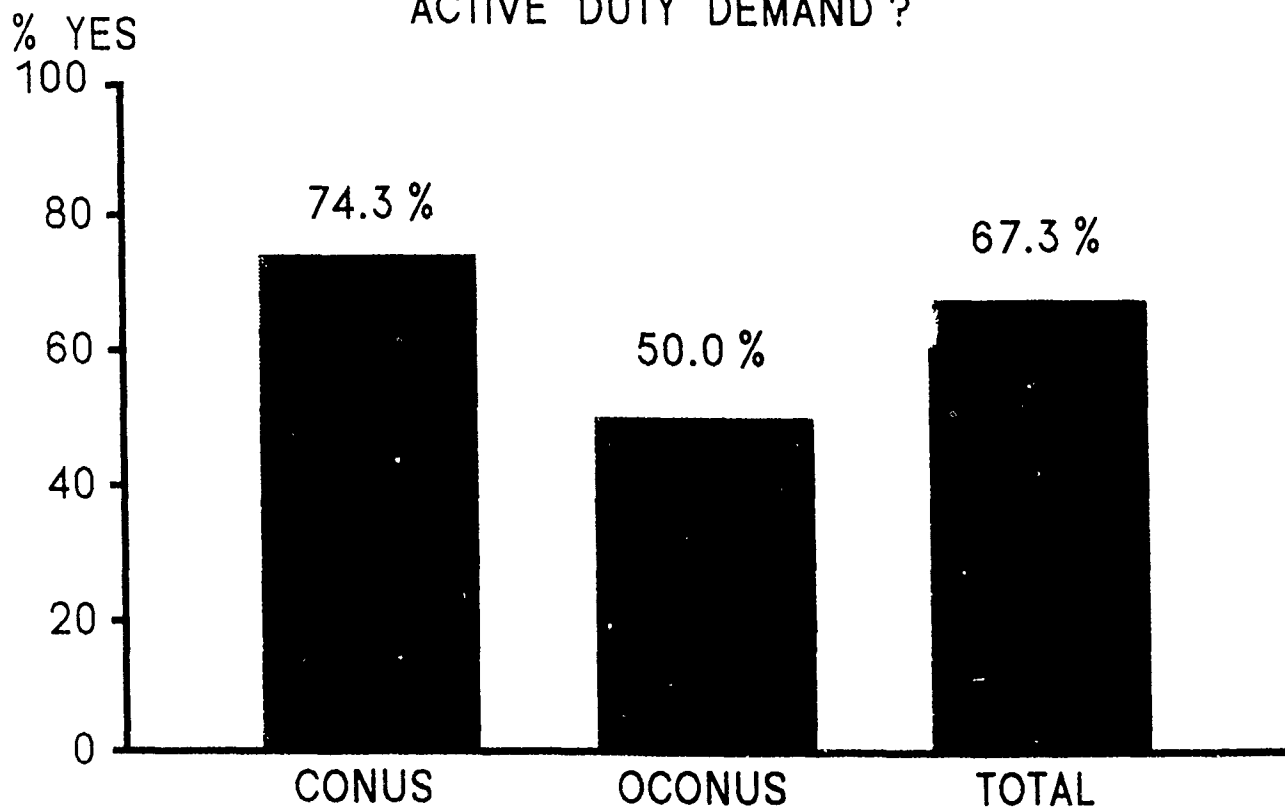


Figure 3

CHIEFS

ADEQUATE DENTAL HYGIENISTS TO SATISFY
ACTIVE DUTY DEMAND ?

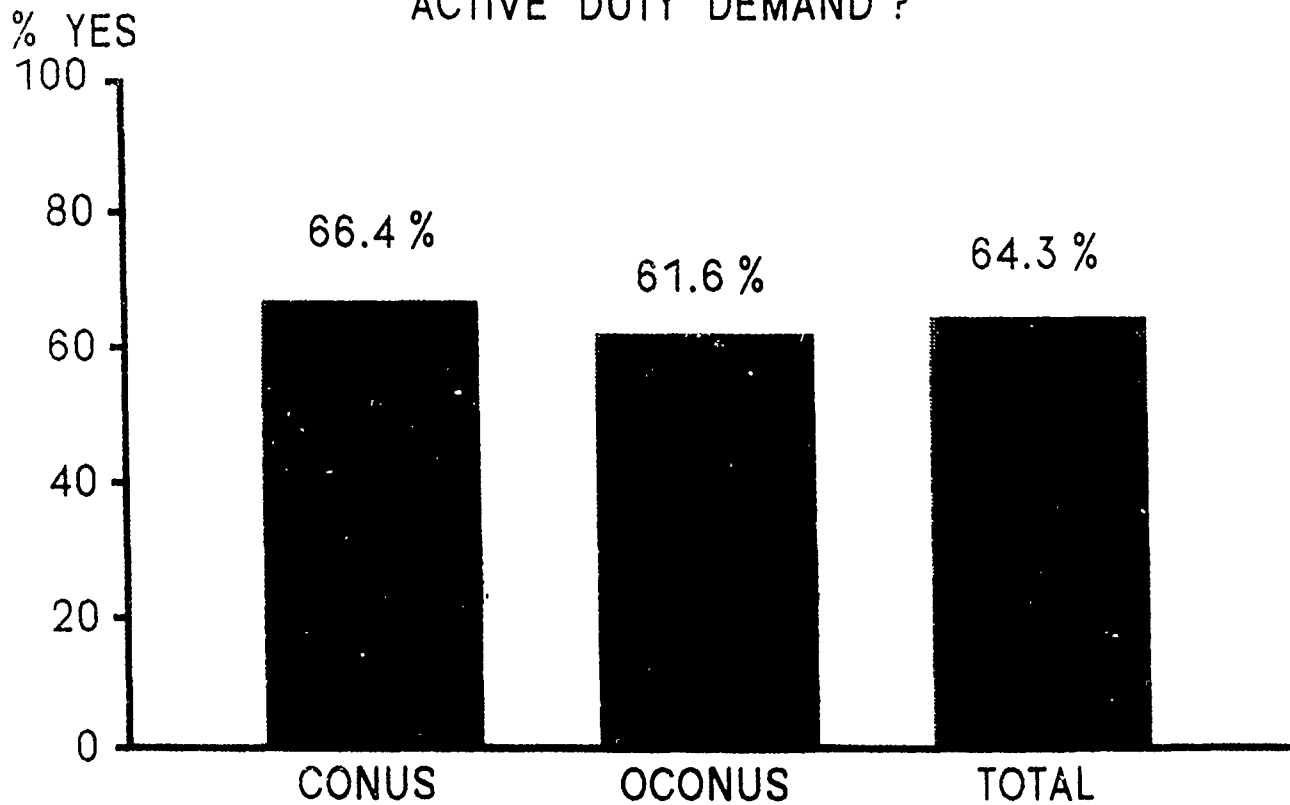


Figure 4

COMMANDERS

ADEQUATE DENTAL HYGIENISTS TO SATISFY
FAMILY MEMBER DEMAND ?

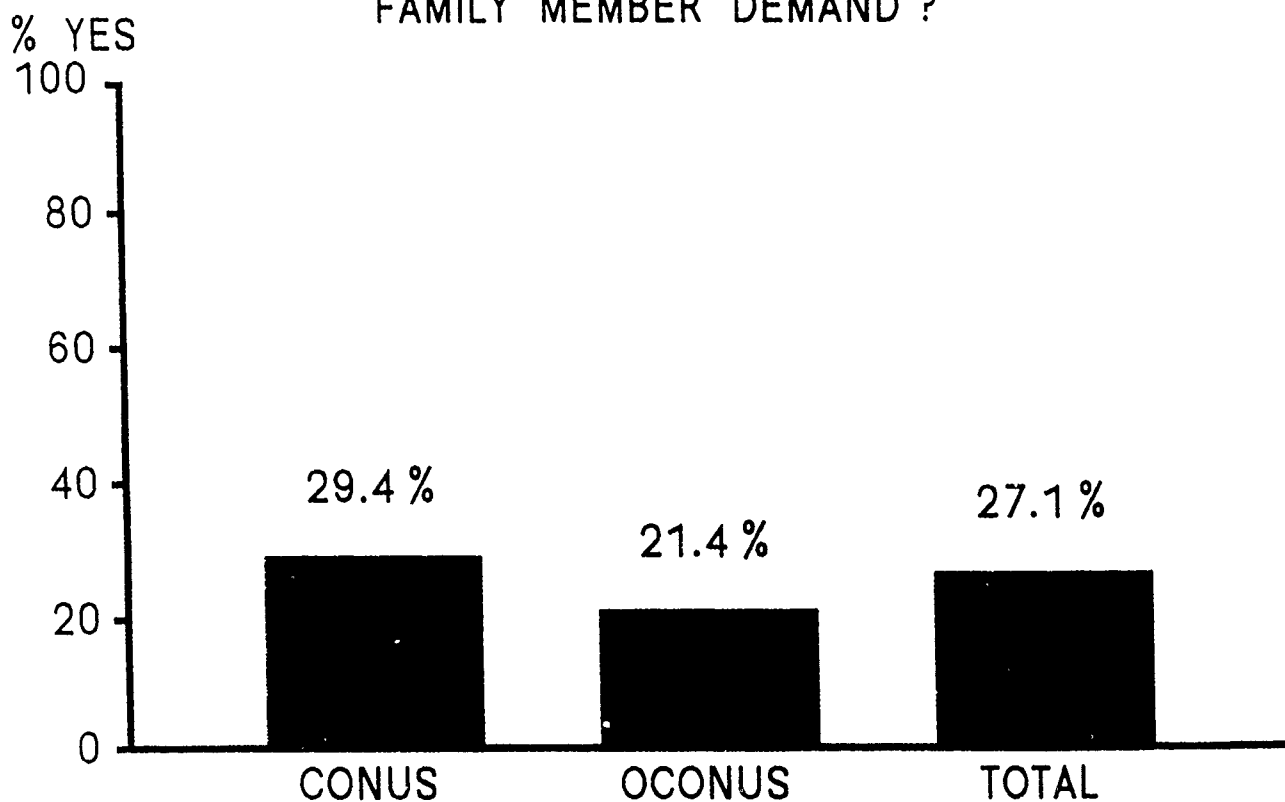


Figure 5

CHIEFS

ADEQUATE DENTAL HYGIENISTS TO SATISFY
FAMILY MEMBER DEMAND ?

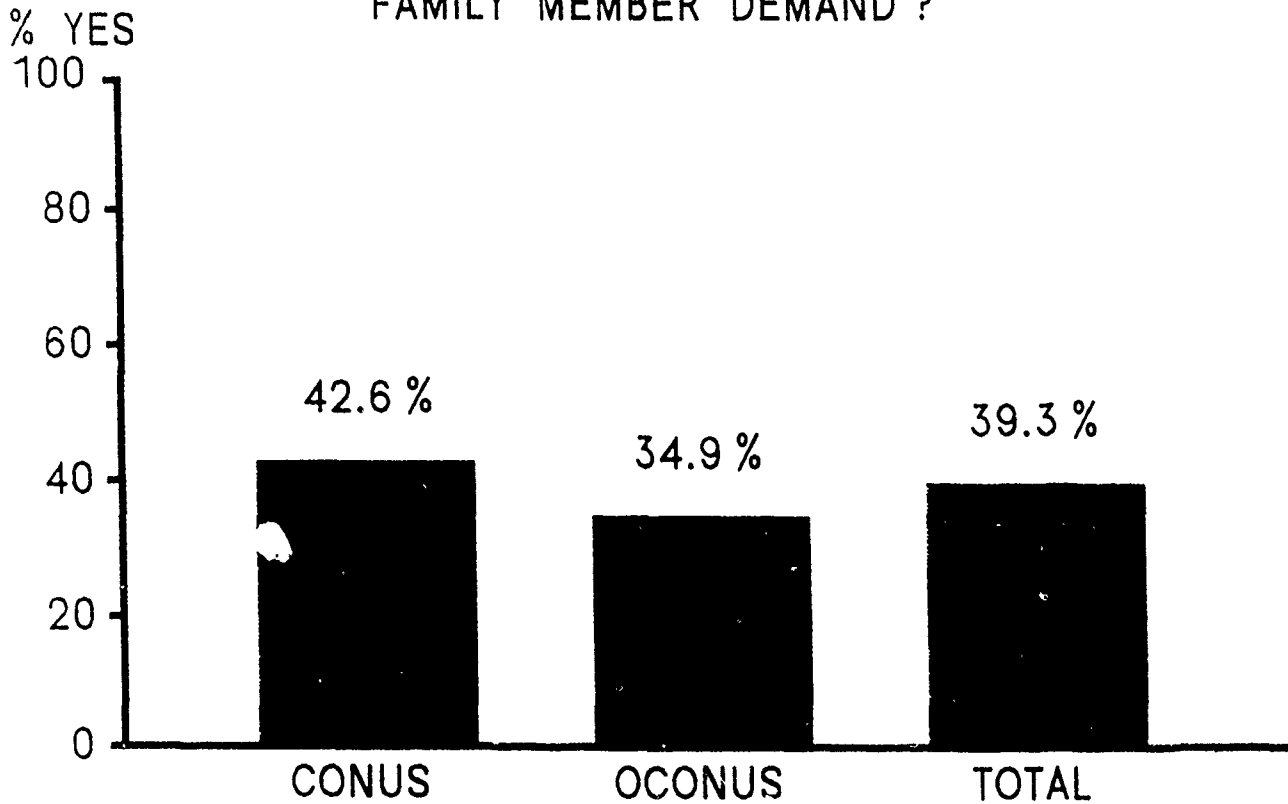


Figure 7

COMMANDERS

ADEQUATE DENTAL HYGIENISTS TO SATISFY
RETIREE DEMAND ?

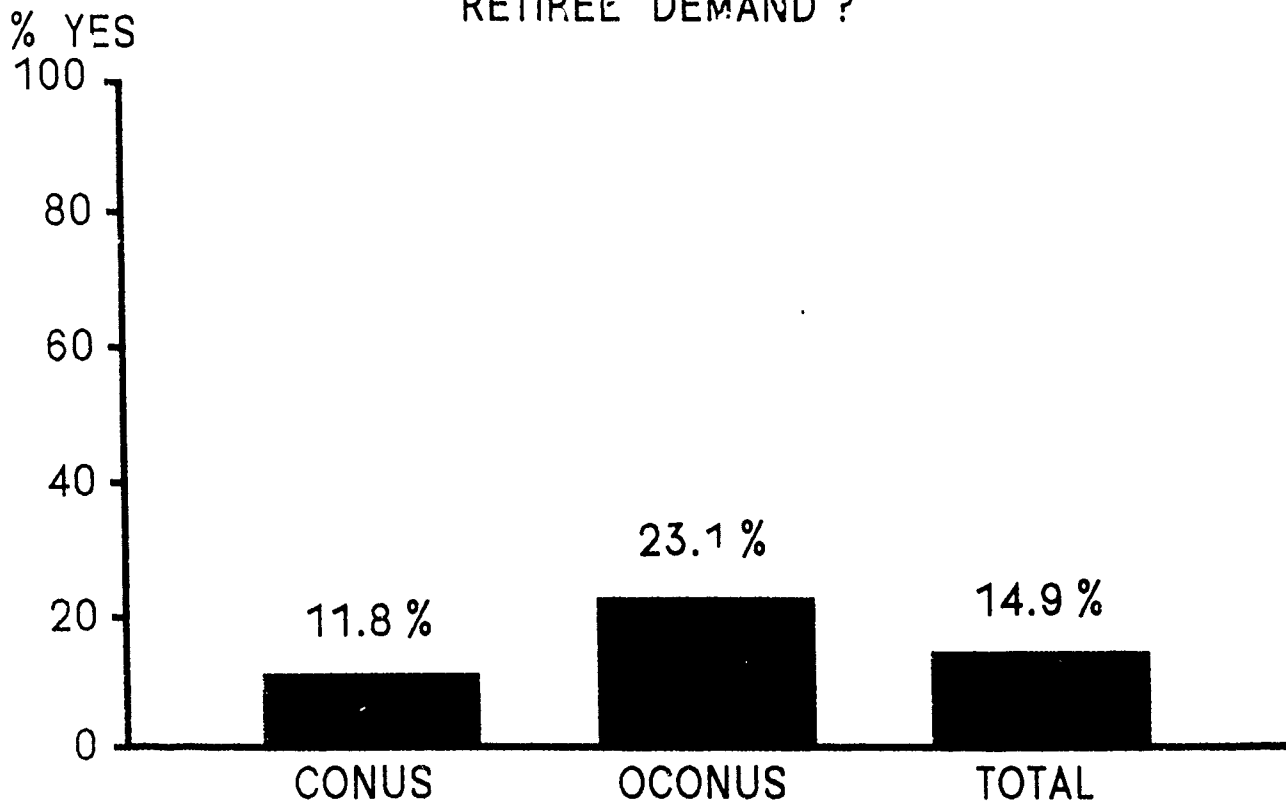


Figure 7

CHIEFS

ADEQUATE DENTAL HYGIENISTS TO SATISFY
RETIREE DEMAND ?

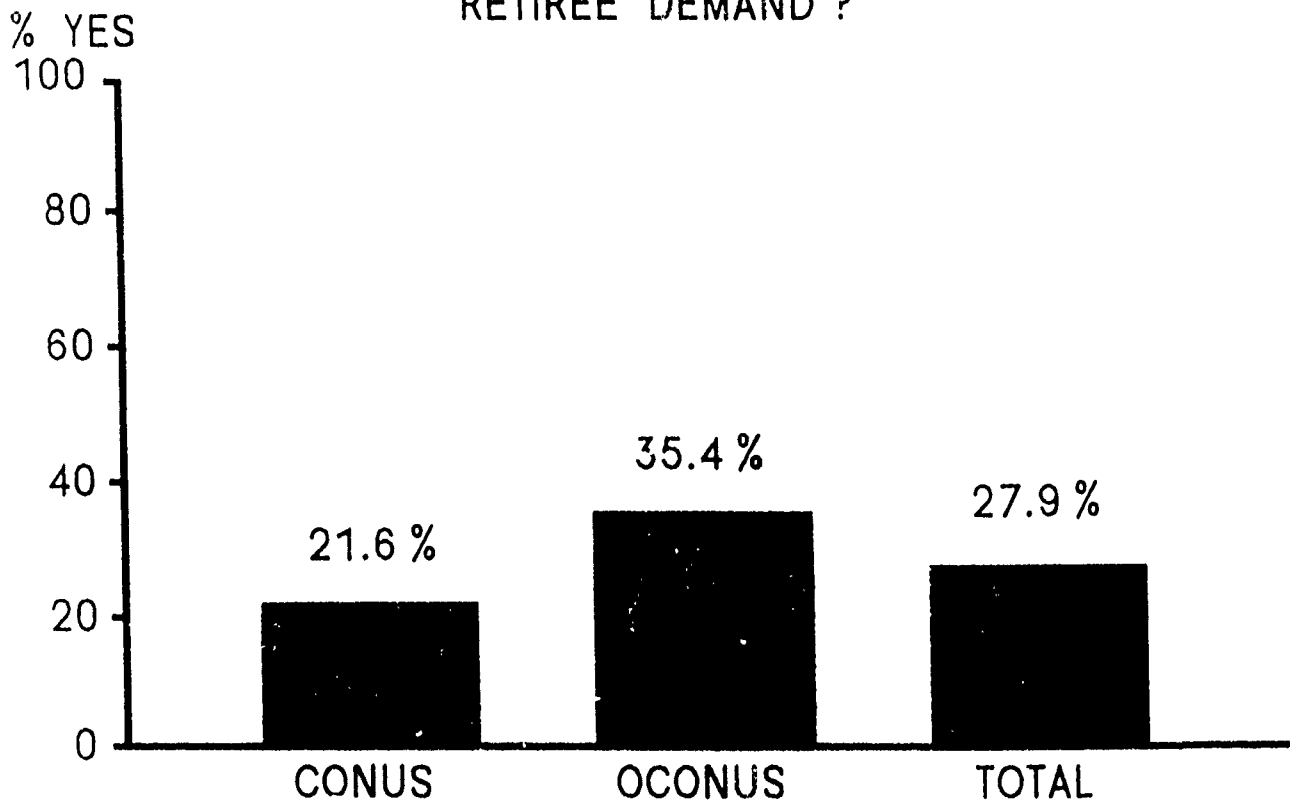


Figure 8

COMMANDERS (TOTAL)

WAITING TIME FOR ORAL HYGIENE APPOINTMENT

(ACTIVE DUTY)

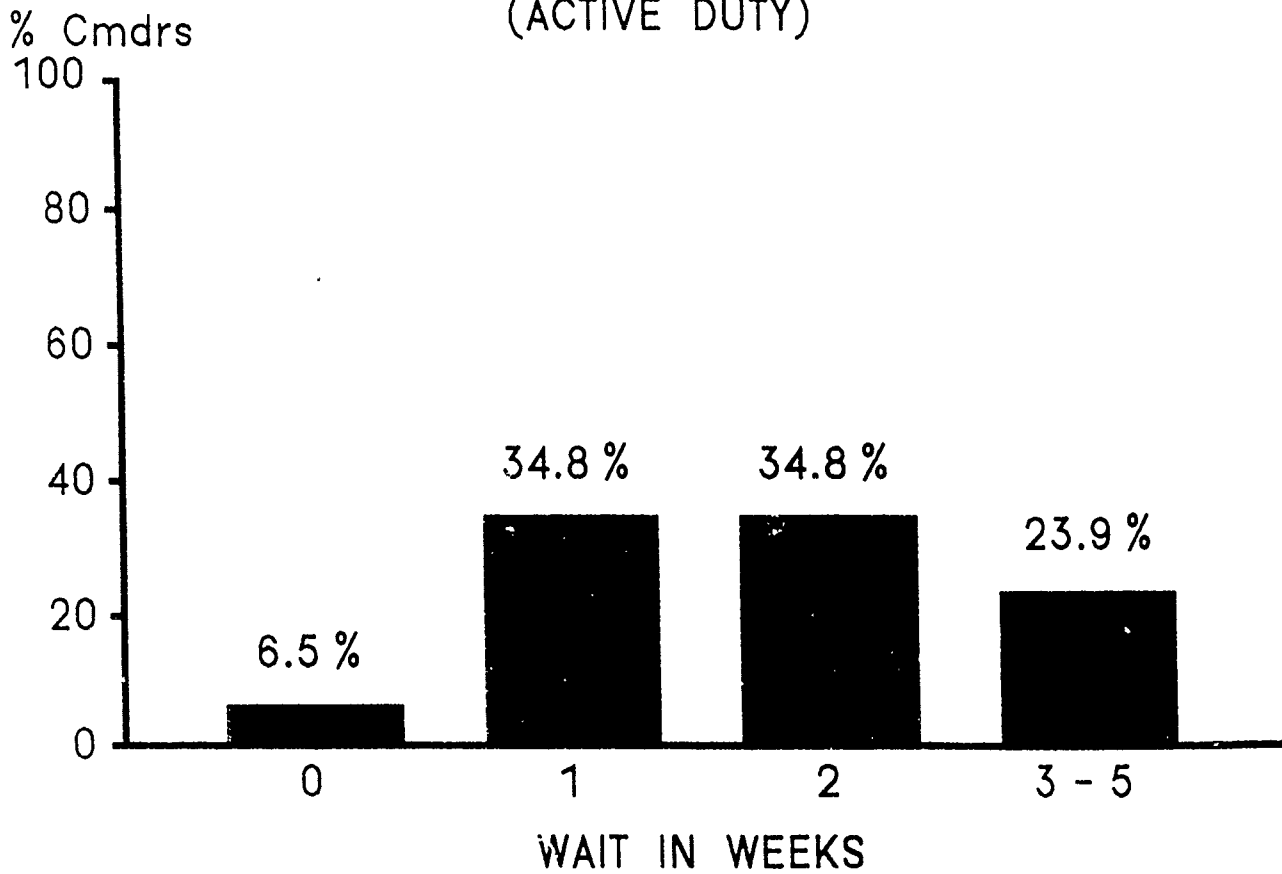


Figure 9

CHIEFS (TOTAL)

WAITING TIME FOR ORAL HYGIENE APPOINTMENT

(ACTIVE DUTY)

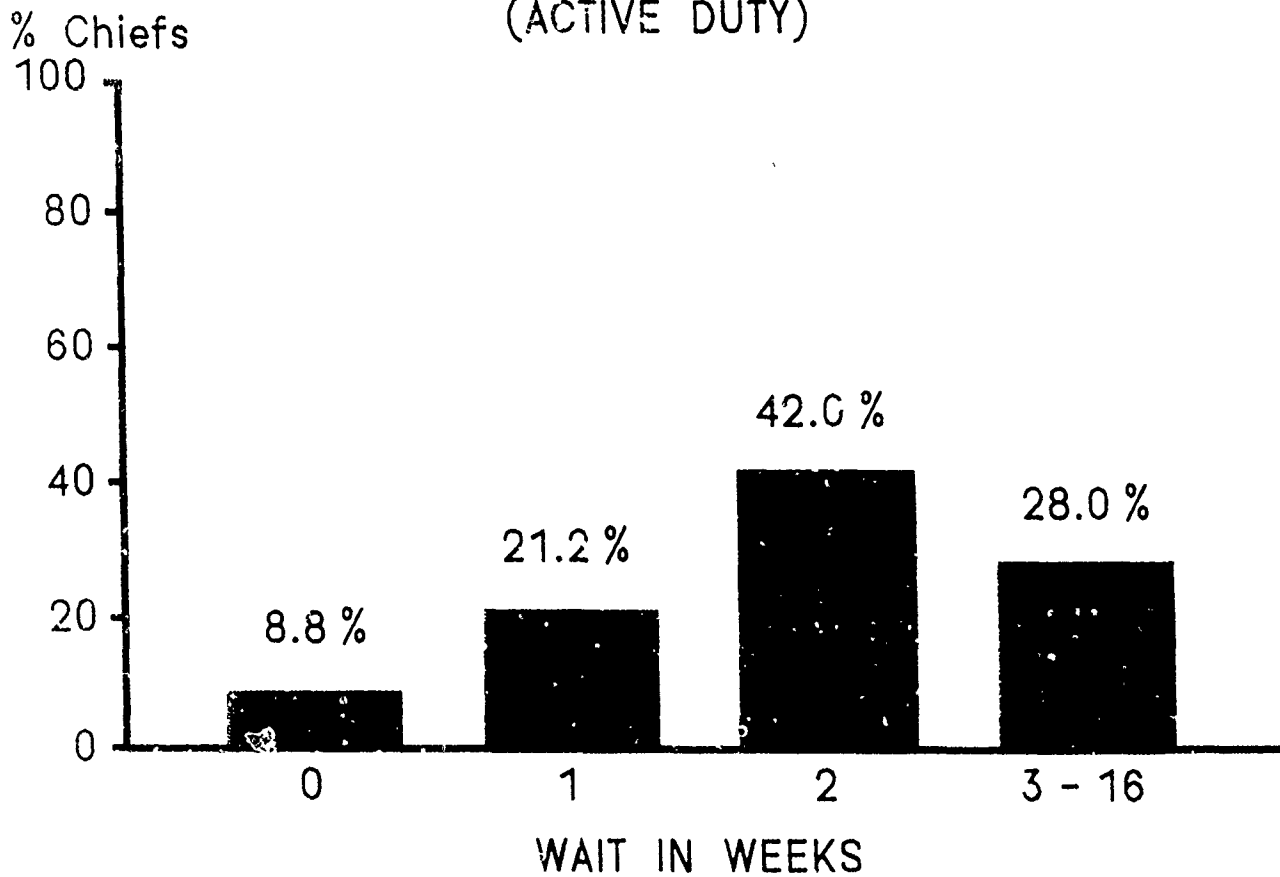


Figure 10

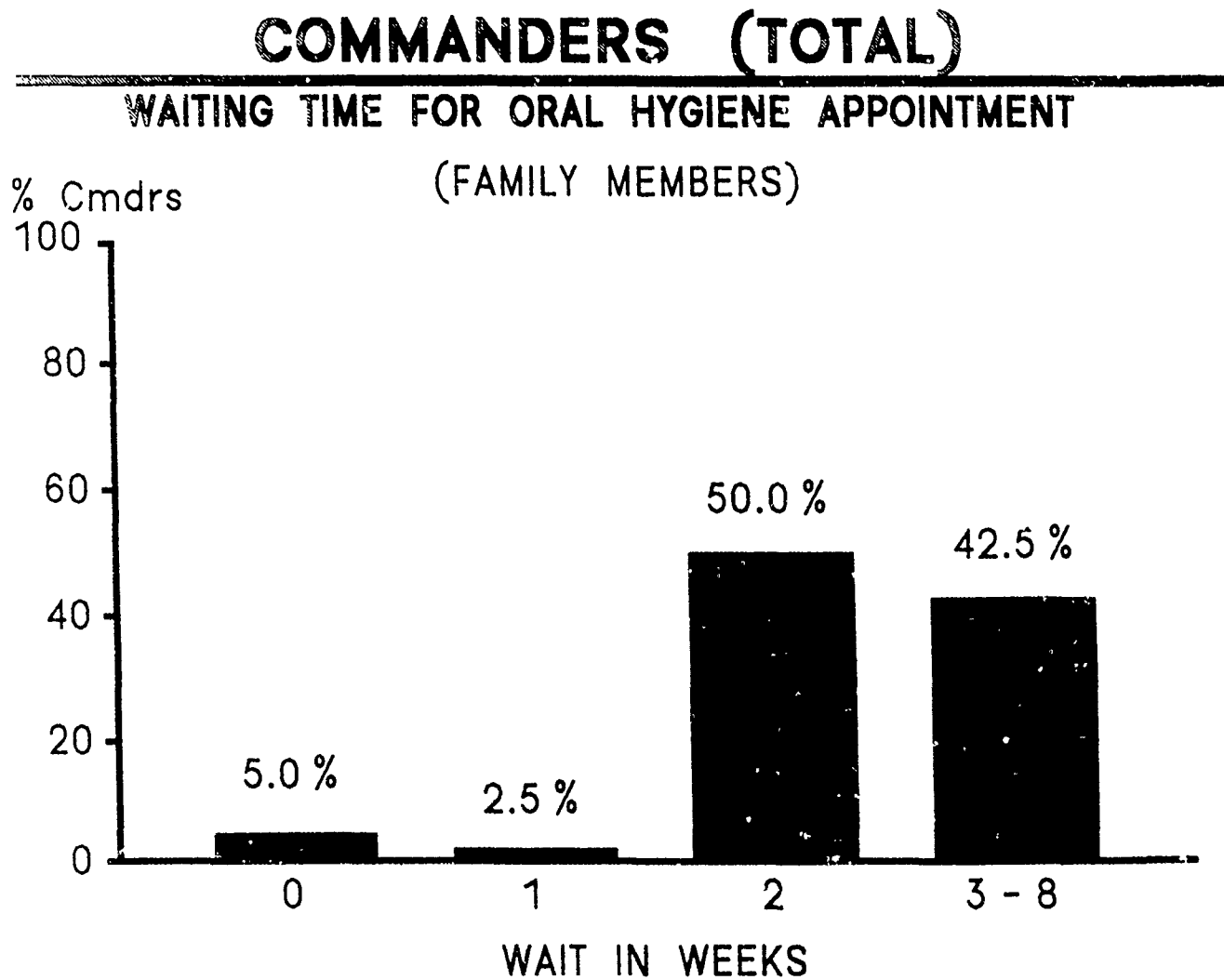


Figure 11

CHIEFS (TOTAL)

WAITING TIME FOR ORAL HYGIENE APPOINTMENT

(FAMILY MEMBERS)

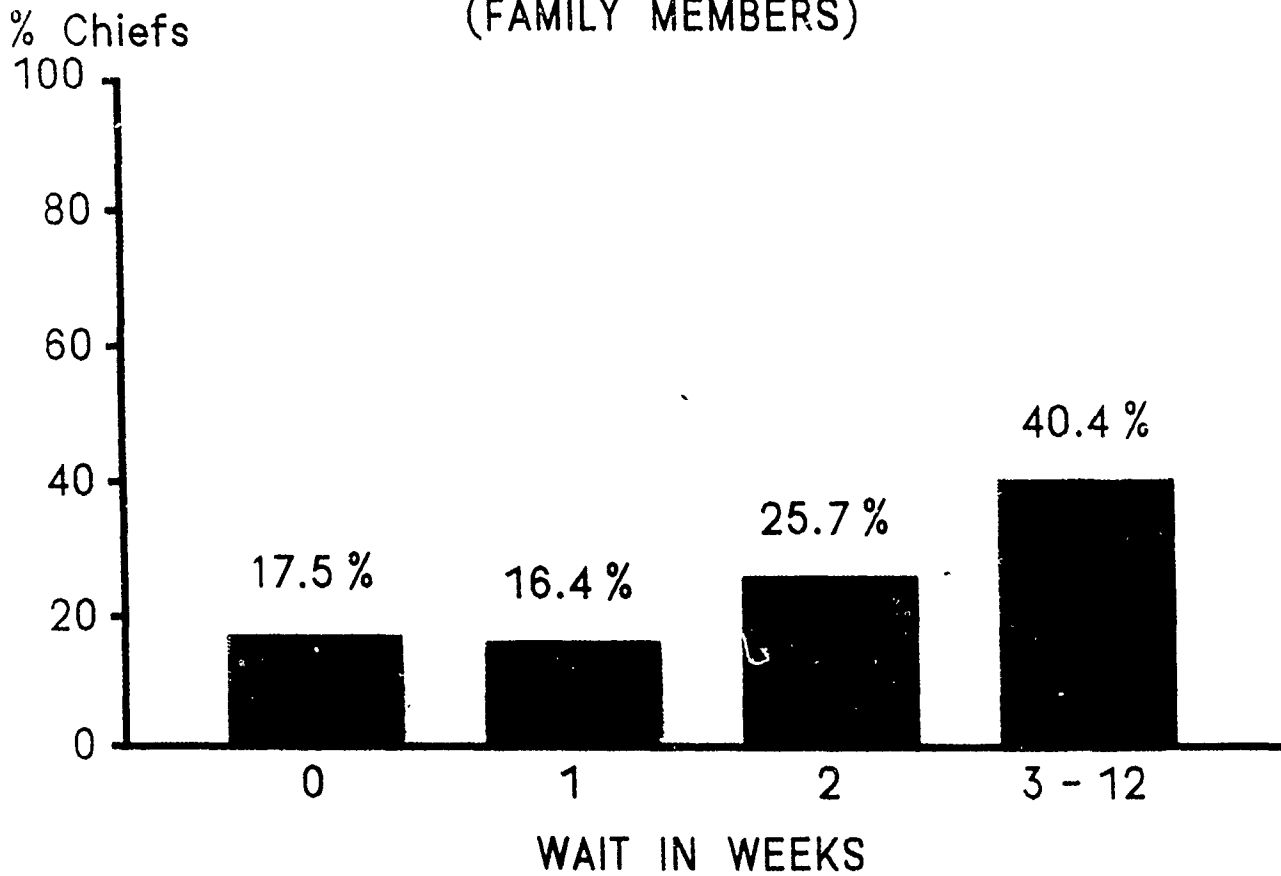


Figure 12

COMMANDERS (TOTAL)

DO YOU HAVE A SHORTAGE OF PERSONNEL ?

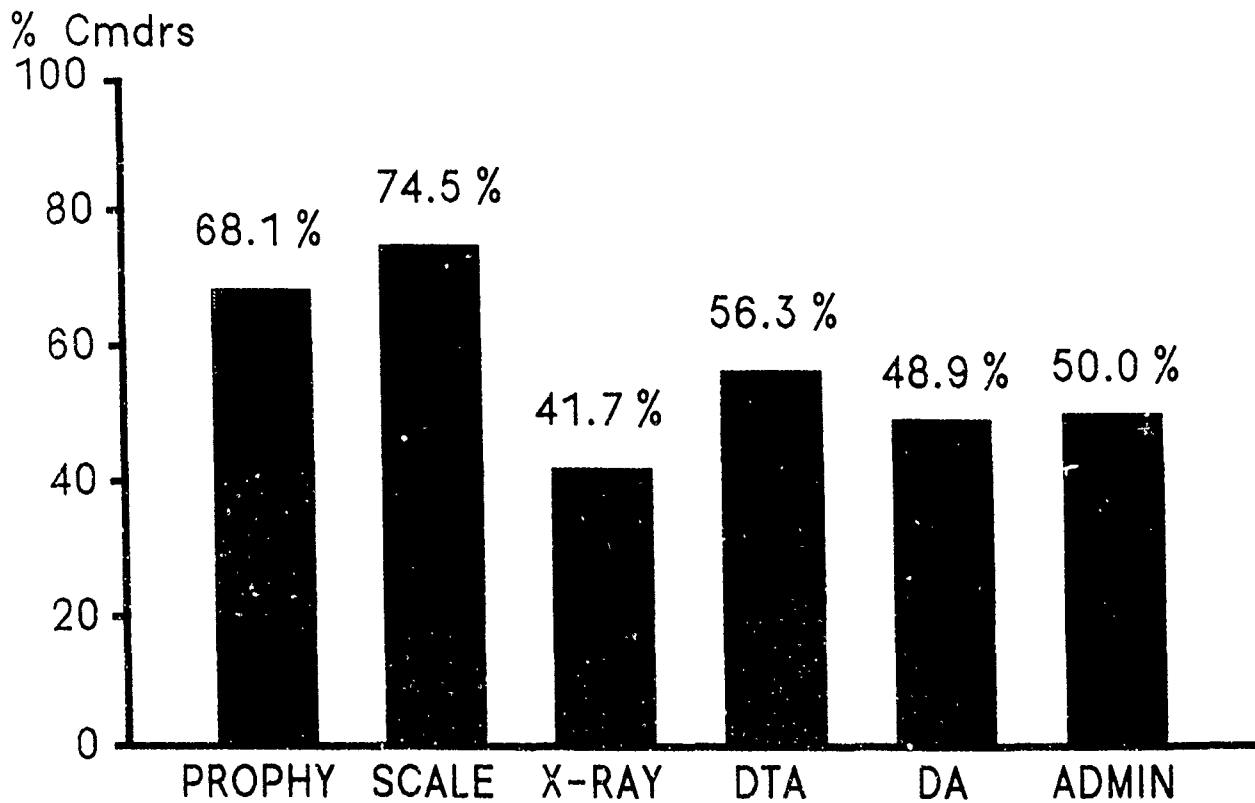


Figure 13

COMMANDERS (CONUS)

DO YOU HAVE A SHORTAGE OF PERSONNEL ?

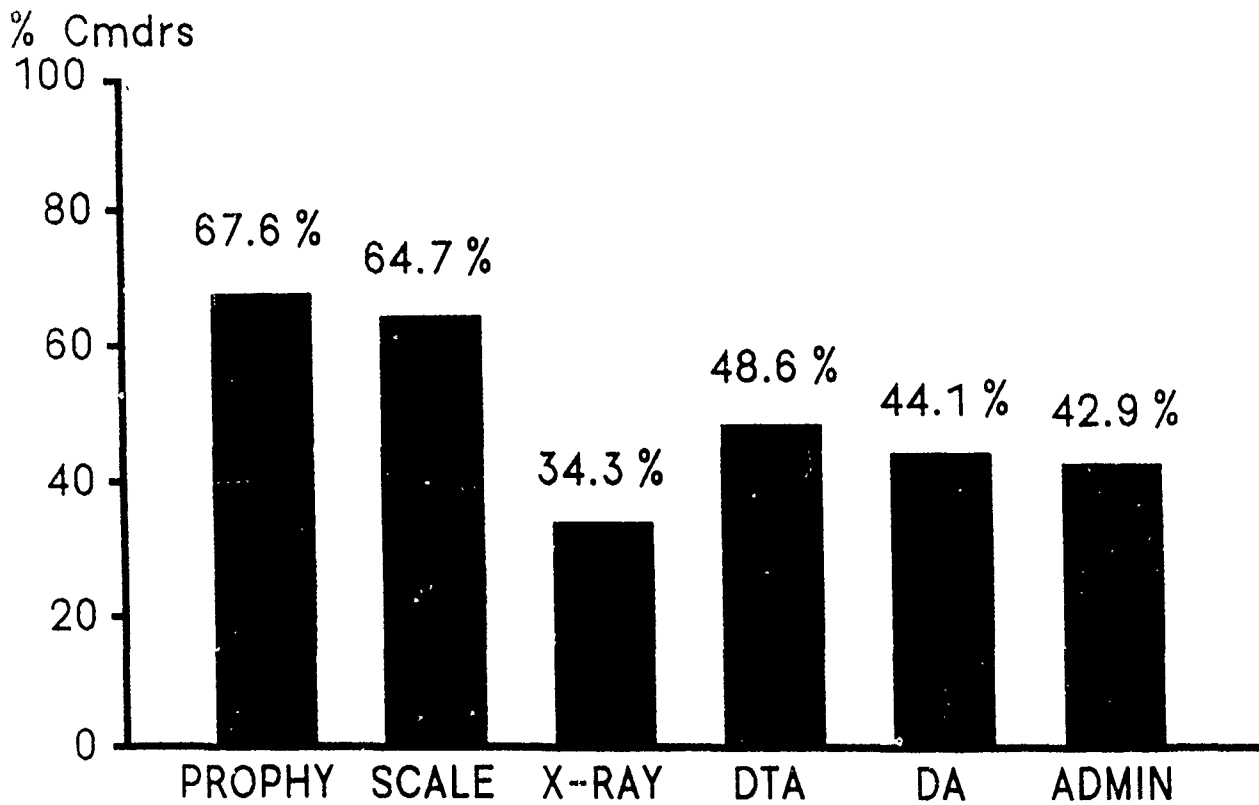


Figure 14

COMMANDERS (OCONUS)

DO YOU HAVE A SHORTAGE OF PERSONNEL ?

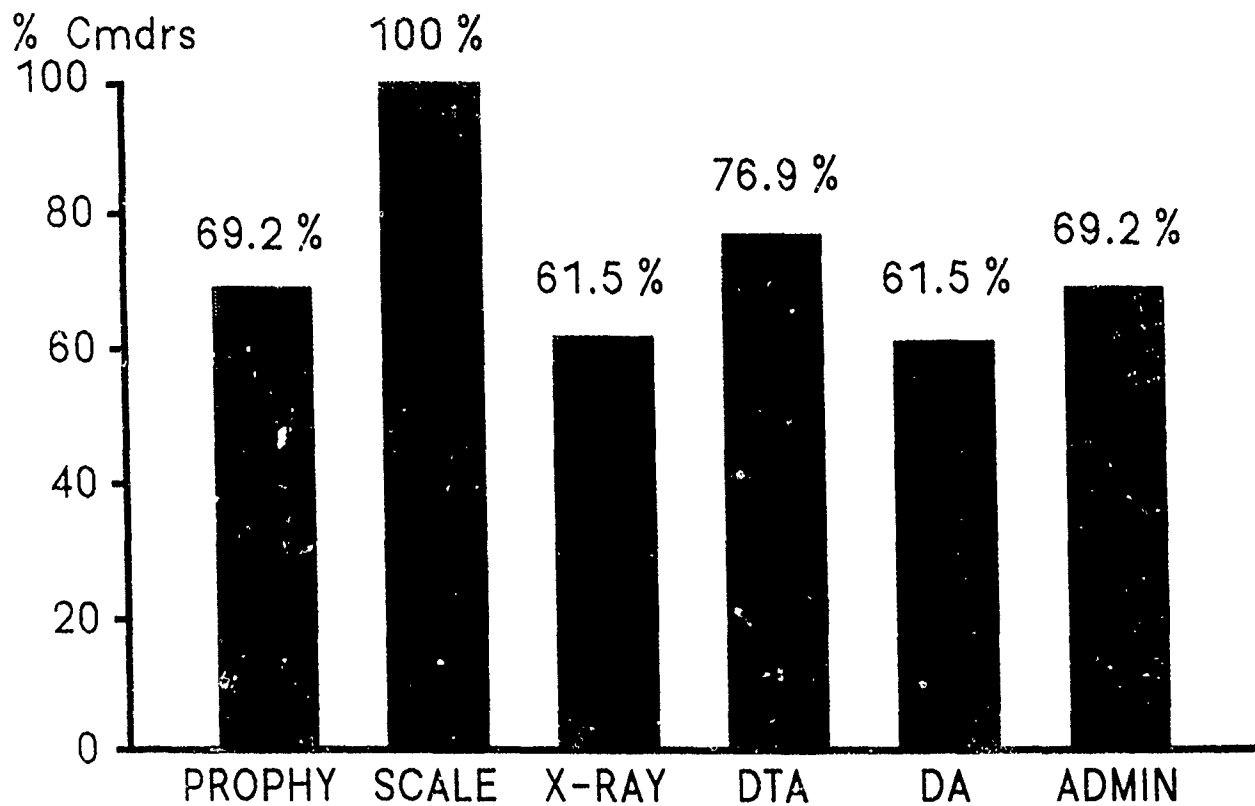


Figure 15

CHIEFS (TOTAL)

DO YOU HAVE A SHORTAGE OF PERSONNEL ?

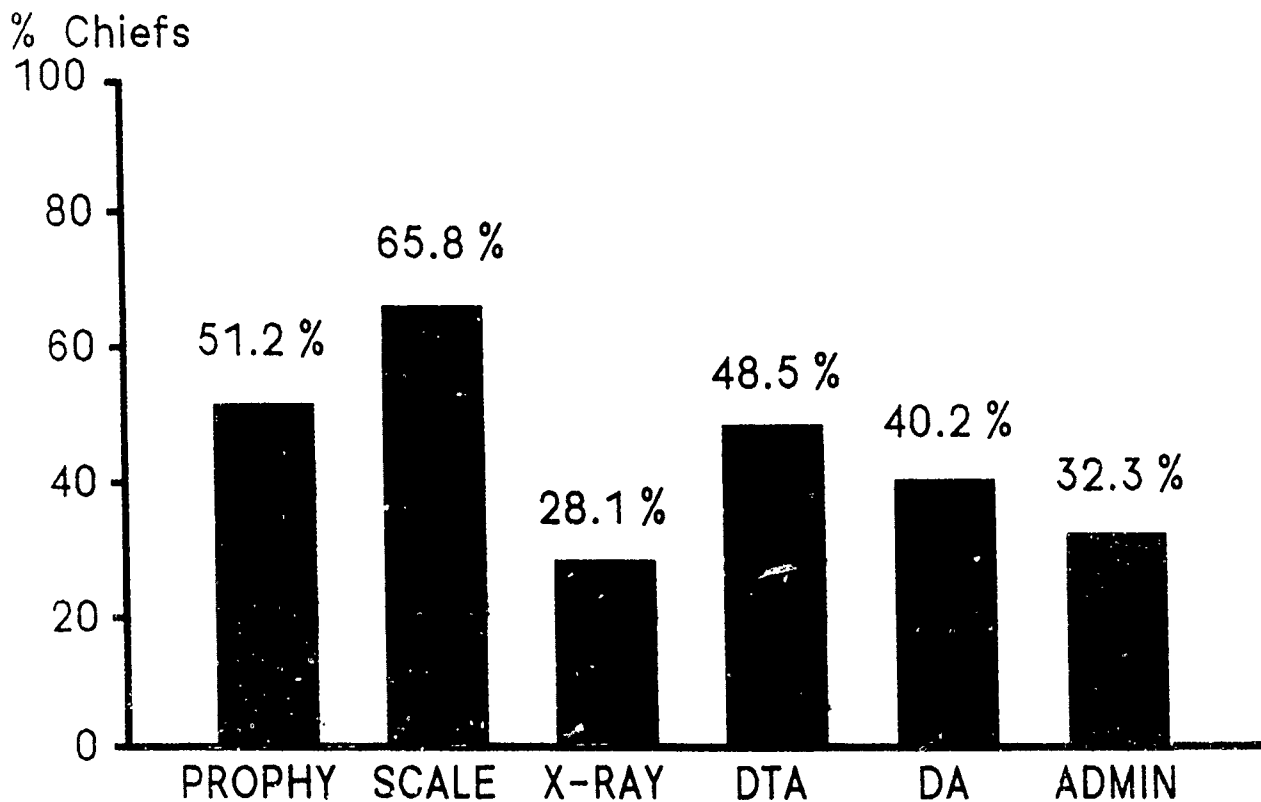


Figure 16

CHIEFS (CONUS)

DO YOU HAVE A SHORTAGE OF PERSONNEL ?

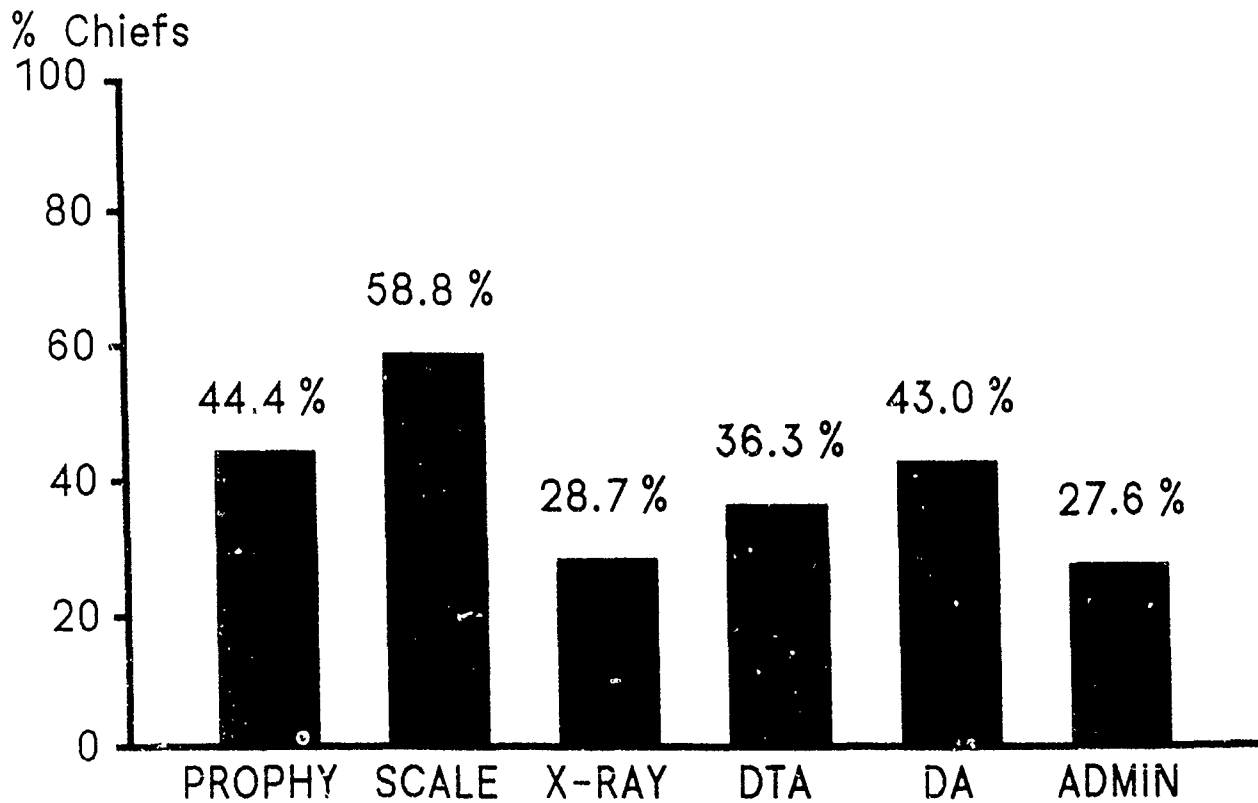


Figure 17

CHIEFS (OCONUS)

DO YOU HAVE A SHORTAGE OF PERSONNEL ?

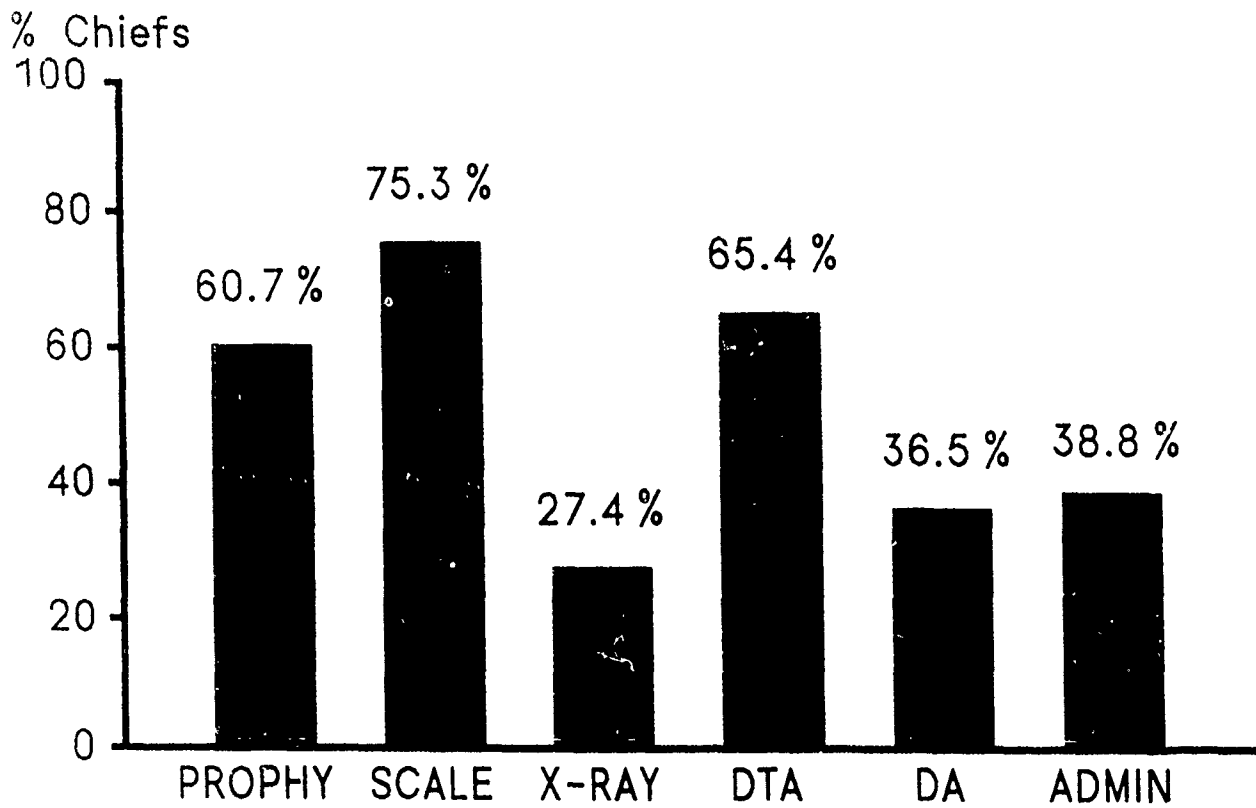


Figure 18

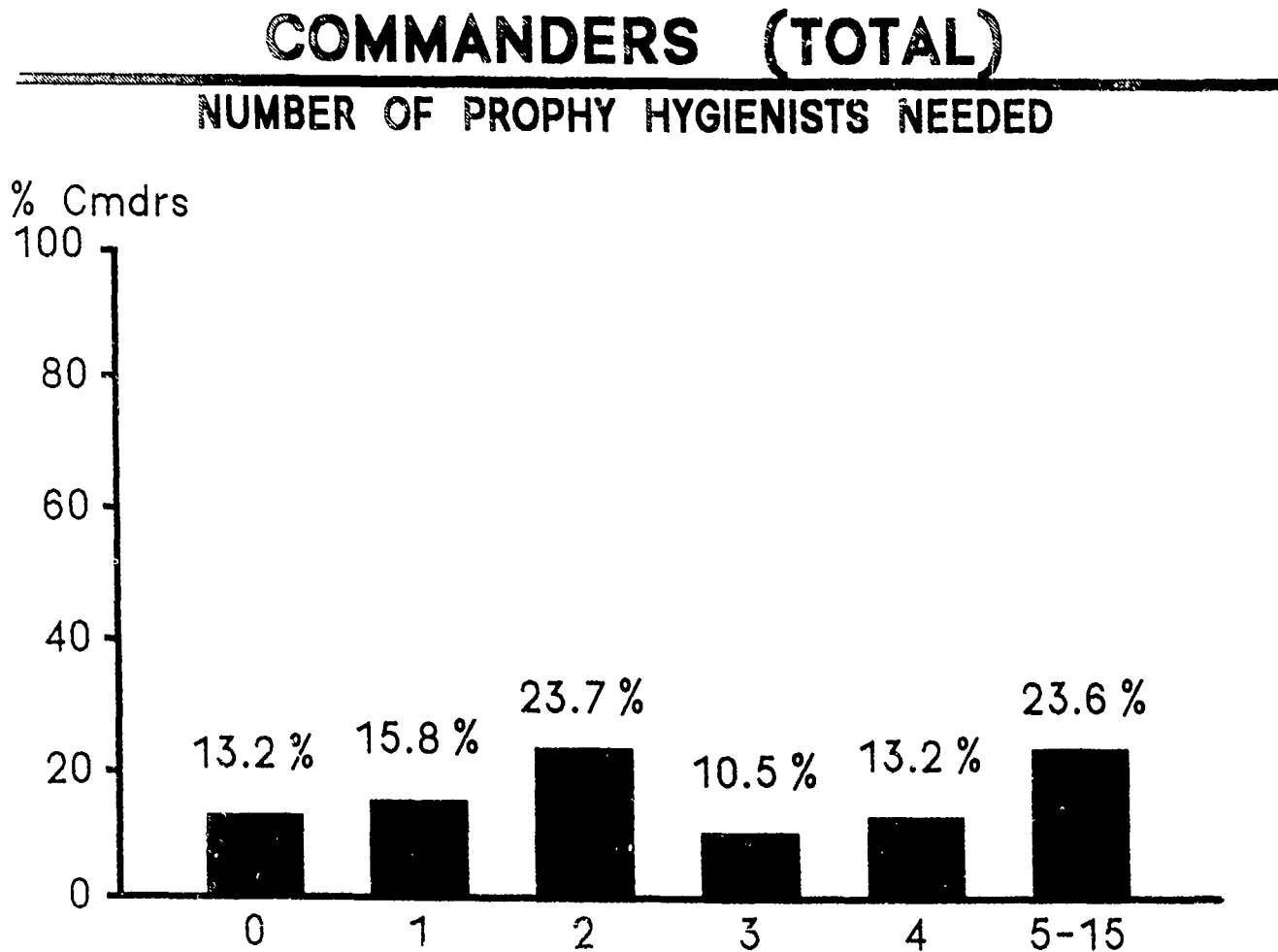


Figure 19

COMMANDERS (CONUS)

NUMBER OF PROPHY HYGIENISTS NEEDED

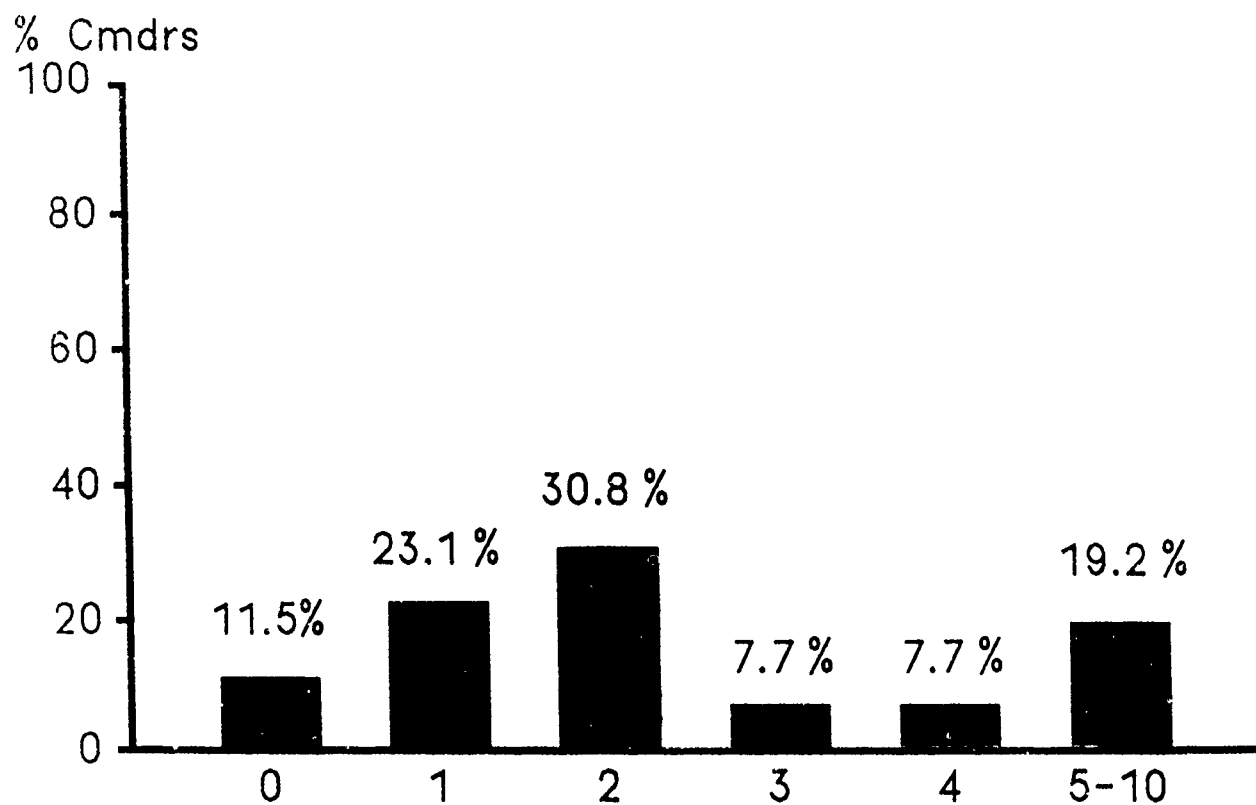


Figure 20

COMMANDERS (OCONUS)

NUMBER OF PROPHY HYGIENISTS NEEDED

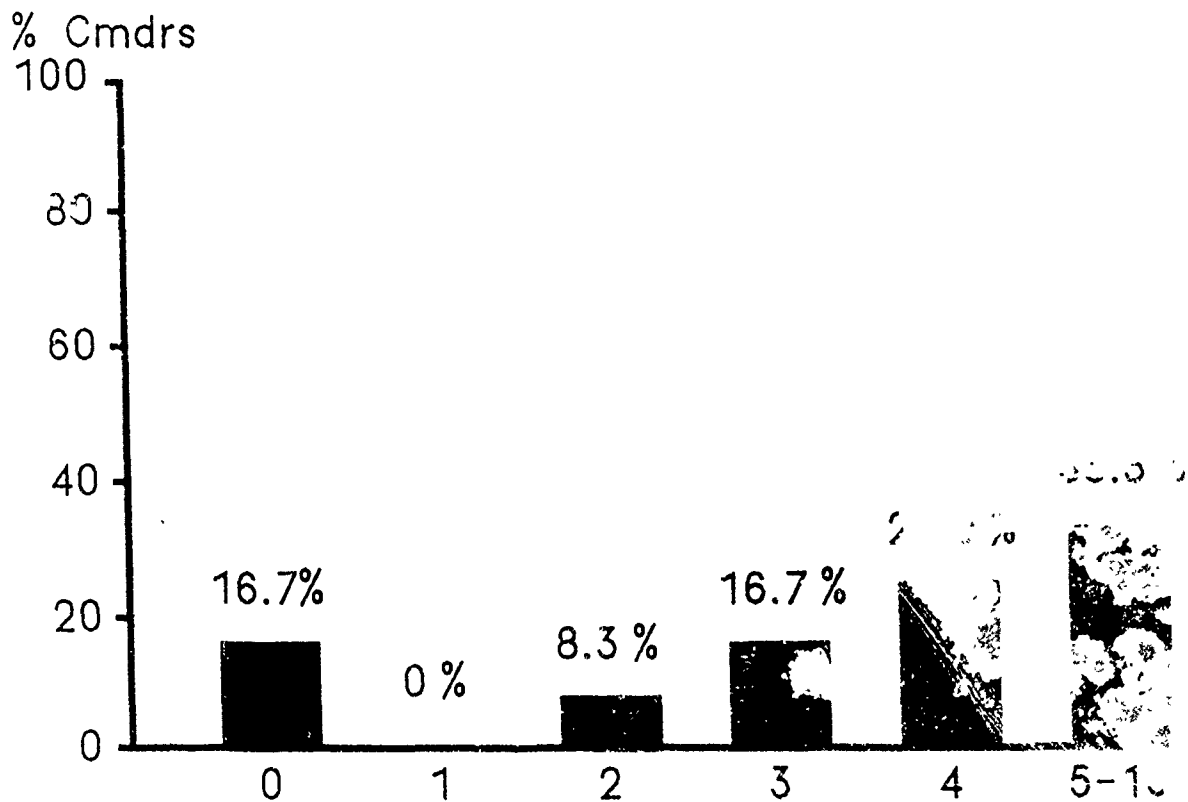


Figure 21

CHIEFS (CONUS)

NUMBER OF PROPHY HYGIENISTS NEEDED

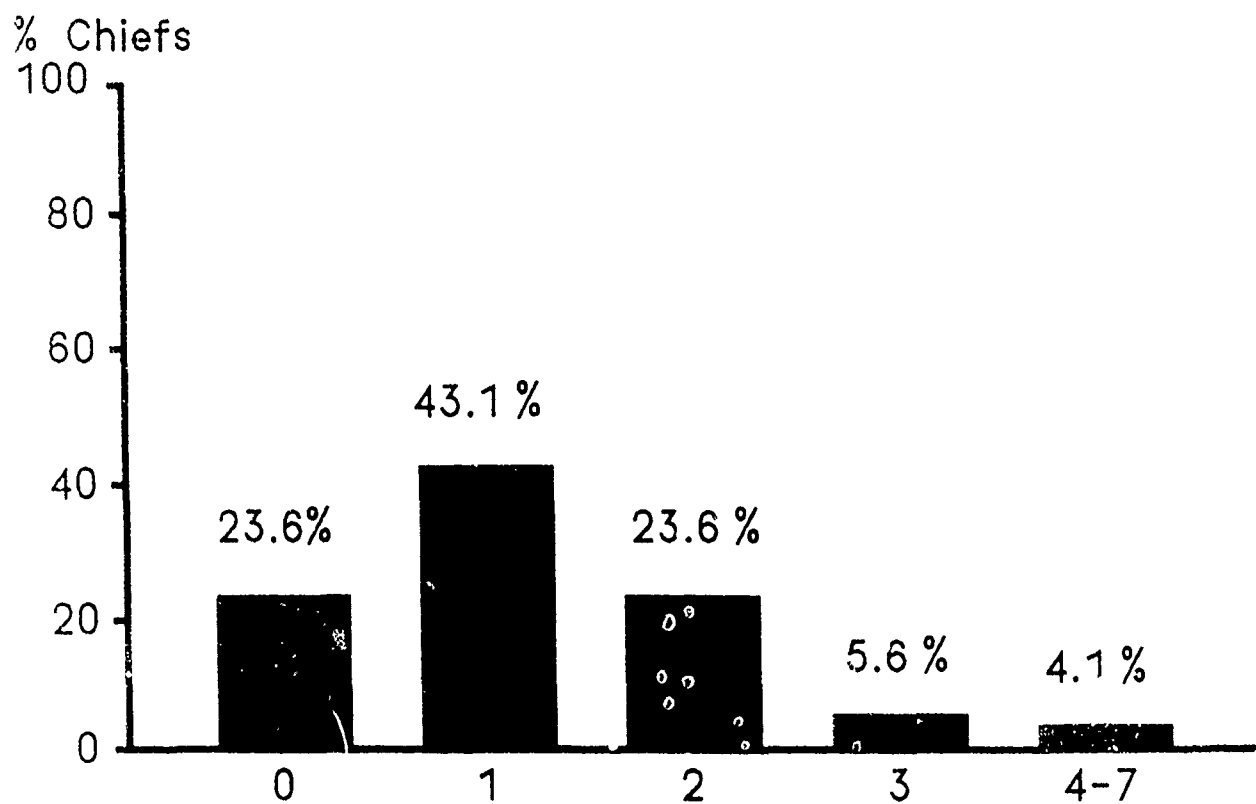


Figure 22

CHIEFS (OCONUS)

NUMBER OF PROPHY HYGIENISTS NEEDED

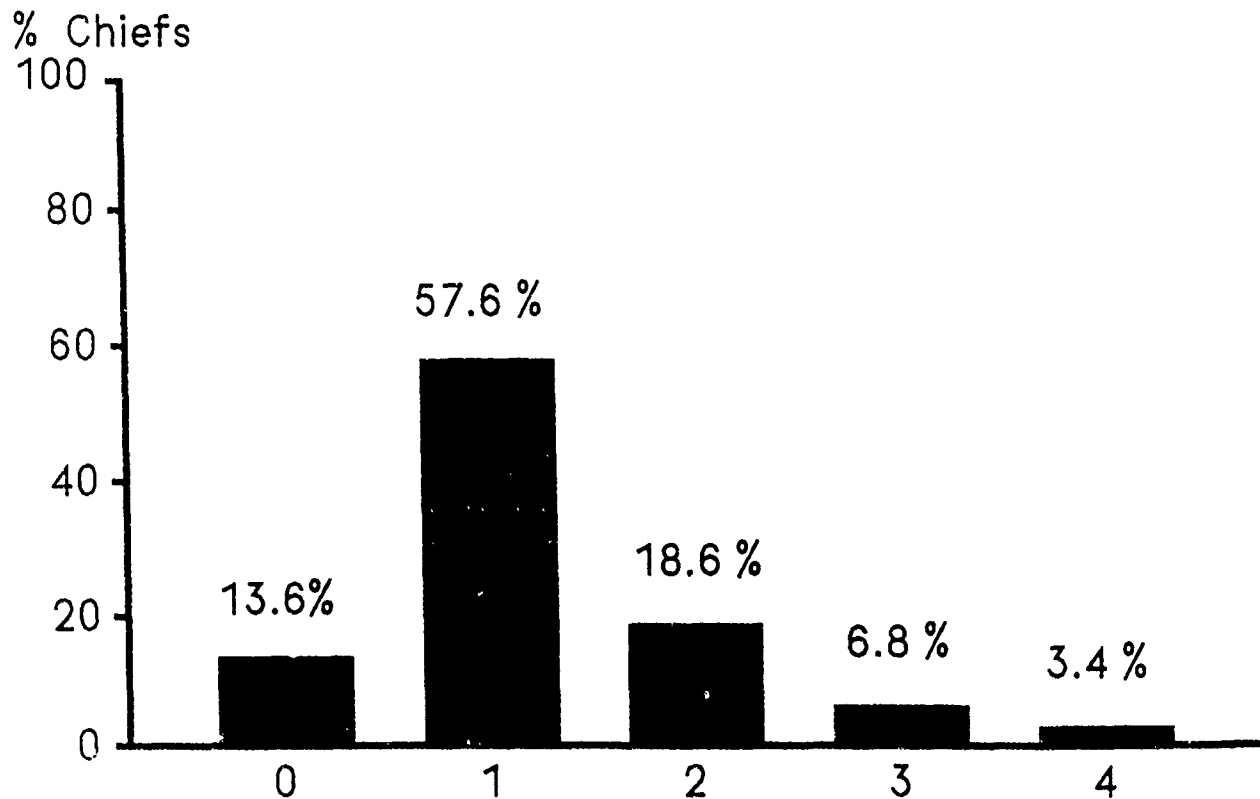


Figure 23

COMMANDERS (TOTAL)

NUMBER OF SCALE HYGIENISTS NEEDED

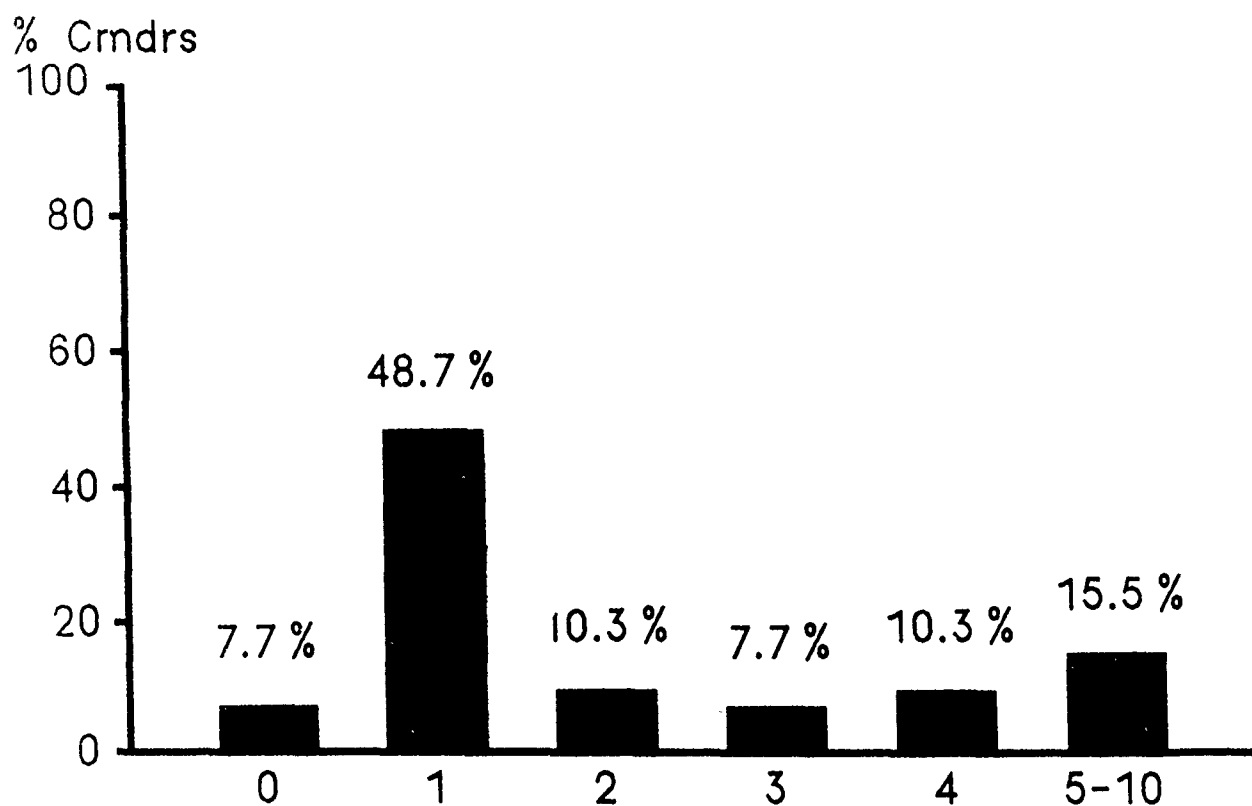


Figure 24

COMMANDERS (CONUS)

NUMBER OF SCALE HYGIENISTS NEEDED

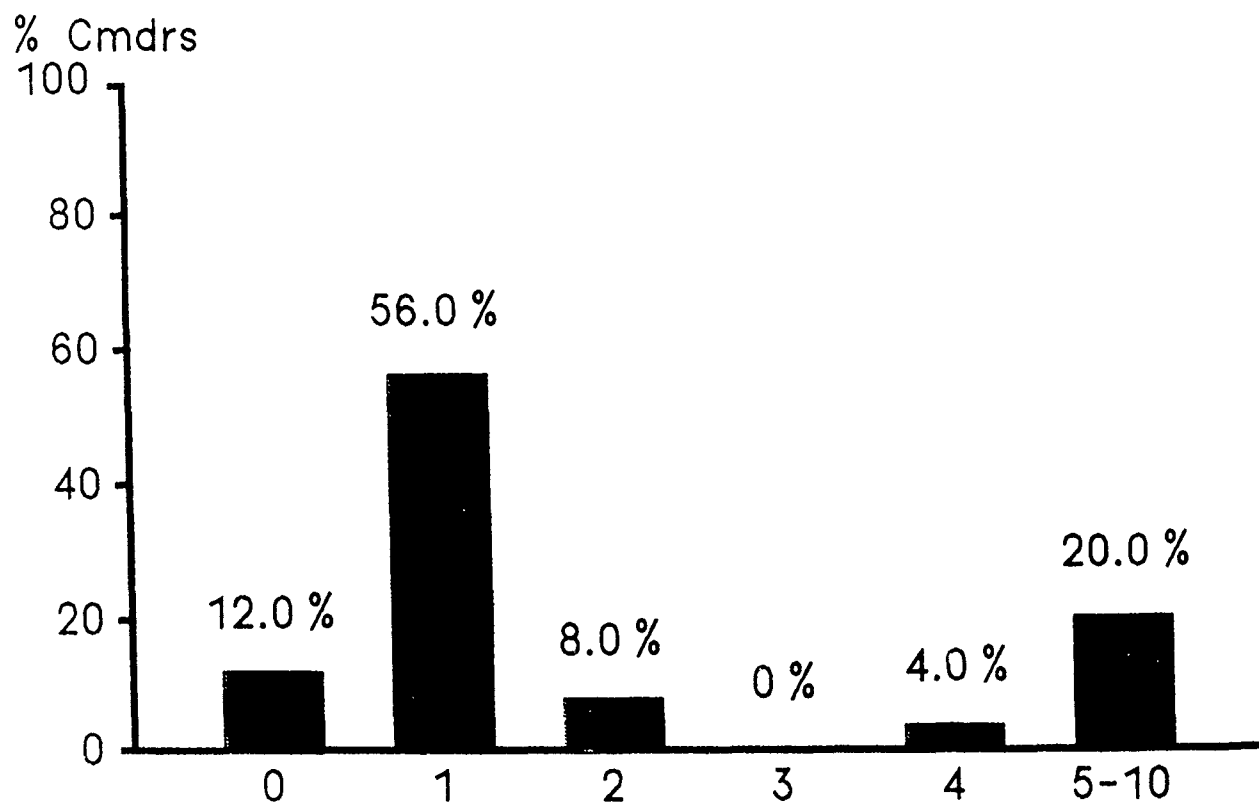


Figure 25

COMMANDERS (OCONUS)

NUMBER OF SCALE HYGIENISTS NEEDED

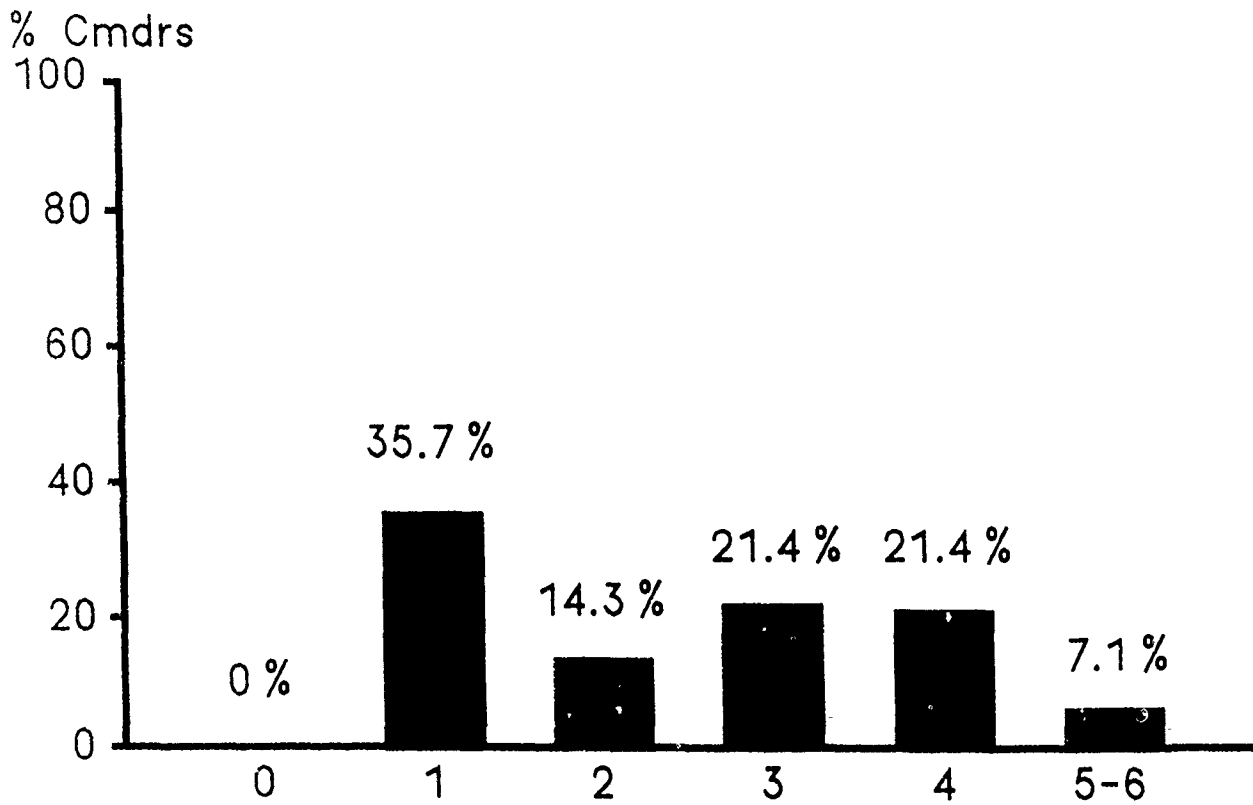


Figure 26

CHIEFS (CONUS)

NUMBER OF SCALE HYGIENISTS NEEDED

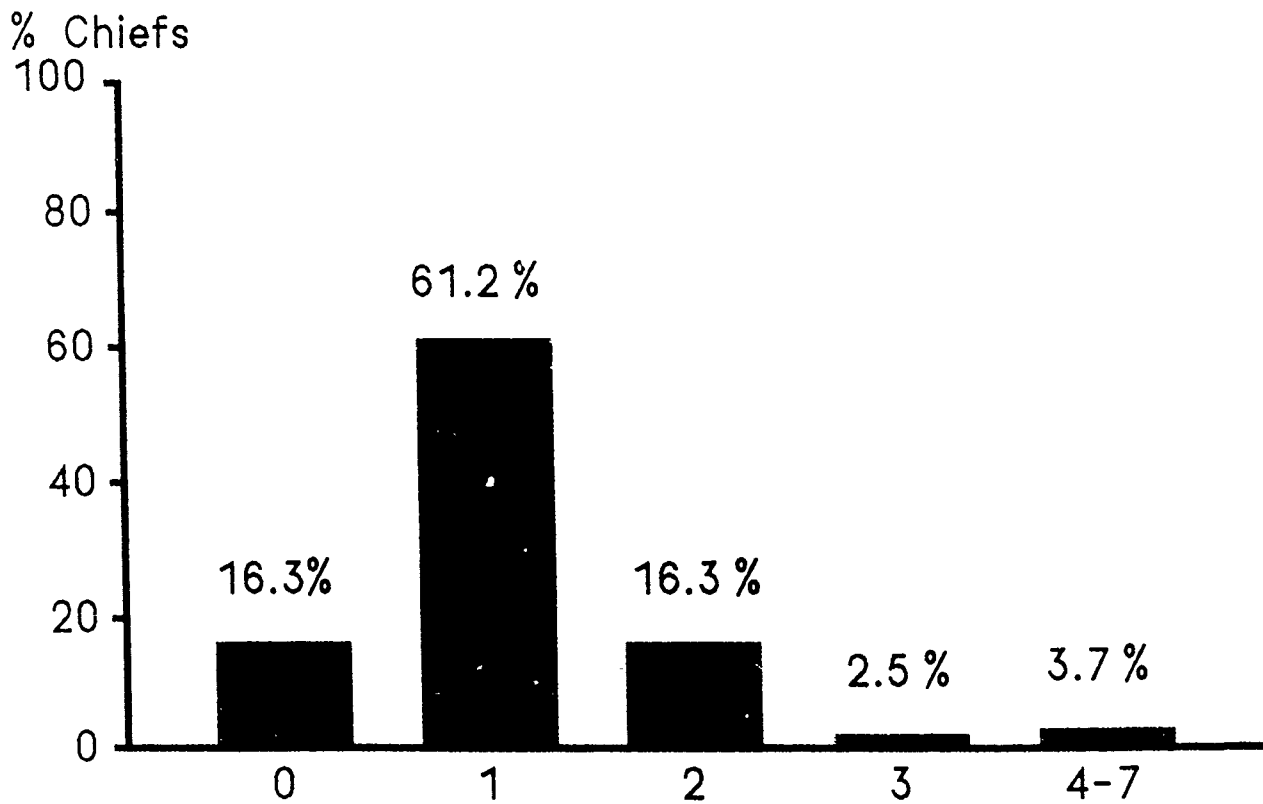


Figure 27

CHIEFS (OCONUS)

NUMBER OF SCALE HYGIENISTS NEEDED

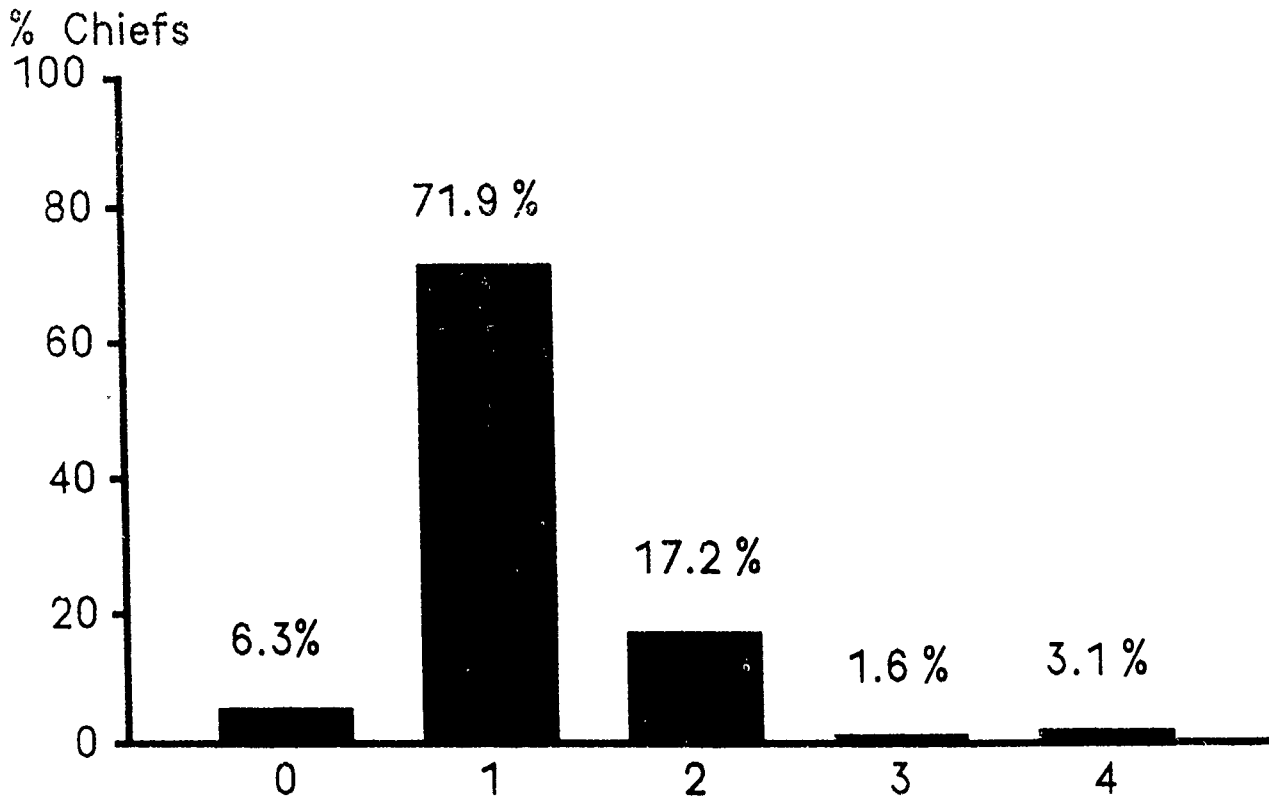


Figure 28

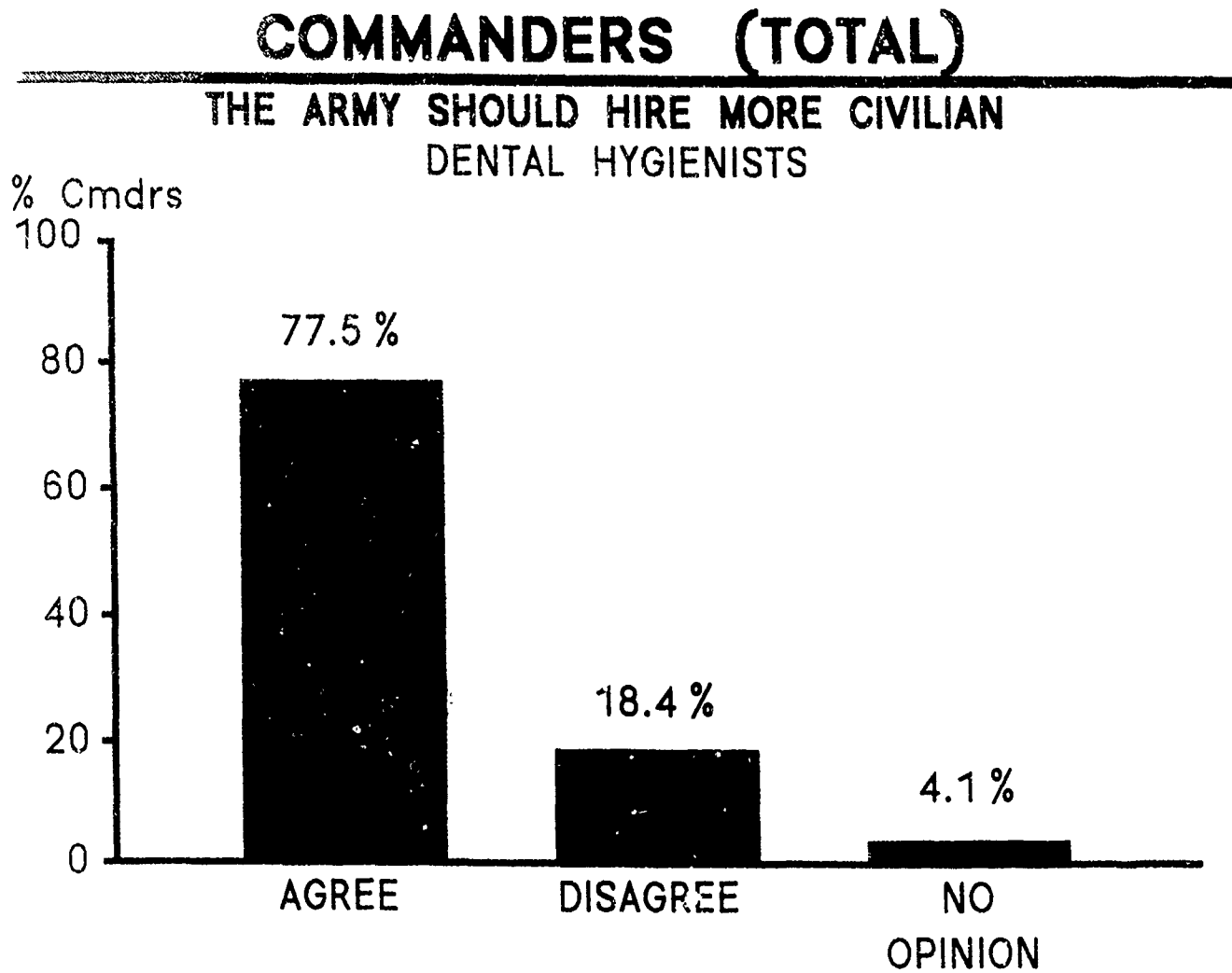


Figure 29

COMMANDERS (TOTAL)

**THE ARMY SHOULD INCREASE NUMBER OF CLASSES
IN CURRENT X2 TRAINING PROGRAM**

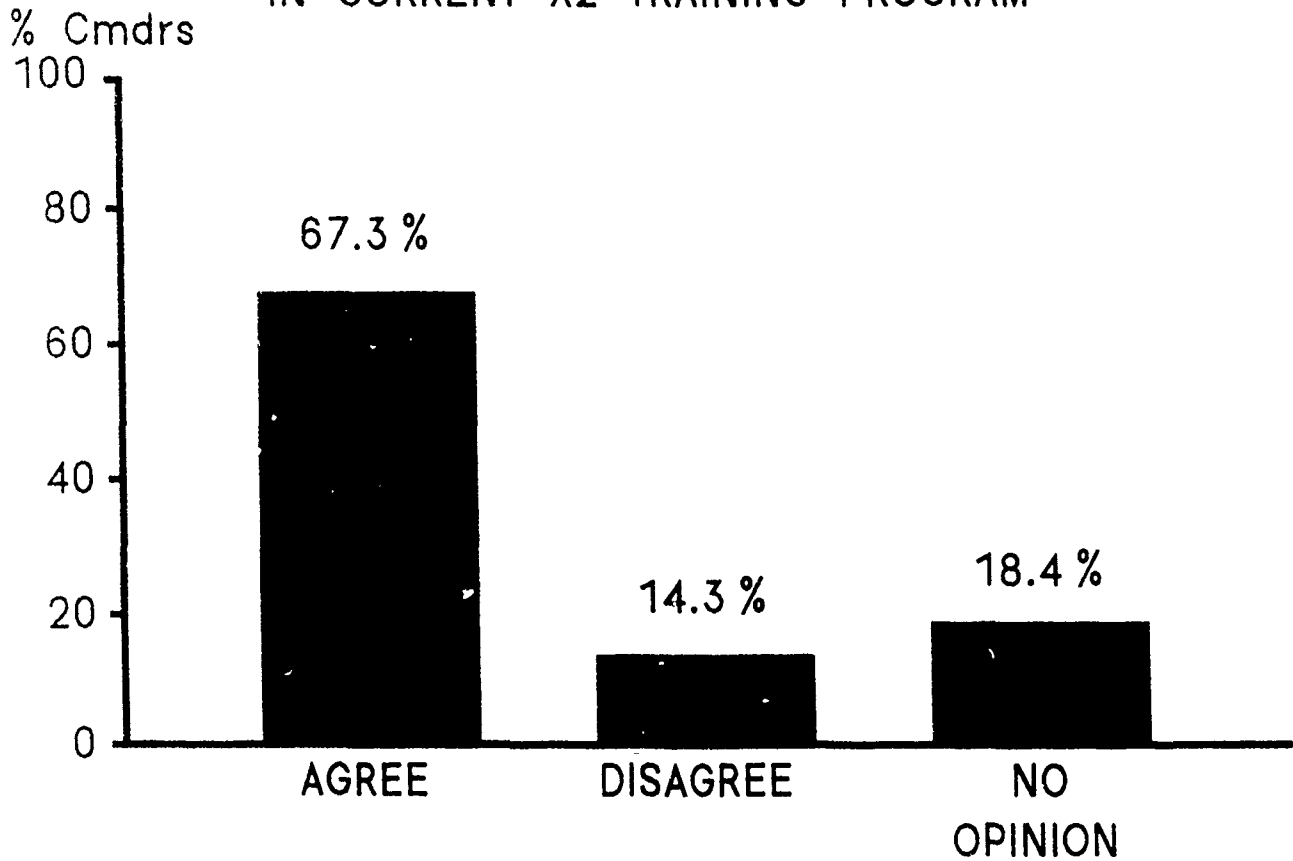


Figure 30

COMMANDERS (TOTAL)

**THE ARMY SHOULD OFFER WO STATUS
TO DENTAL HYGIENISTS**

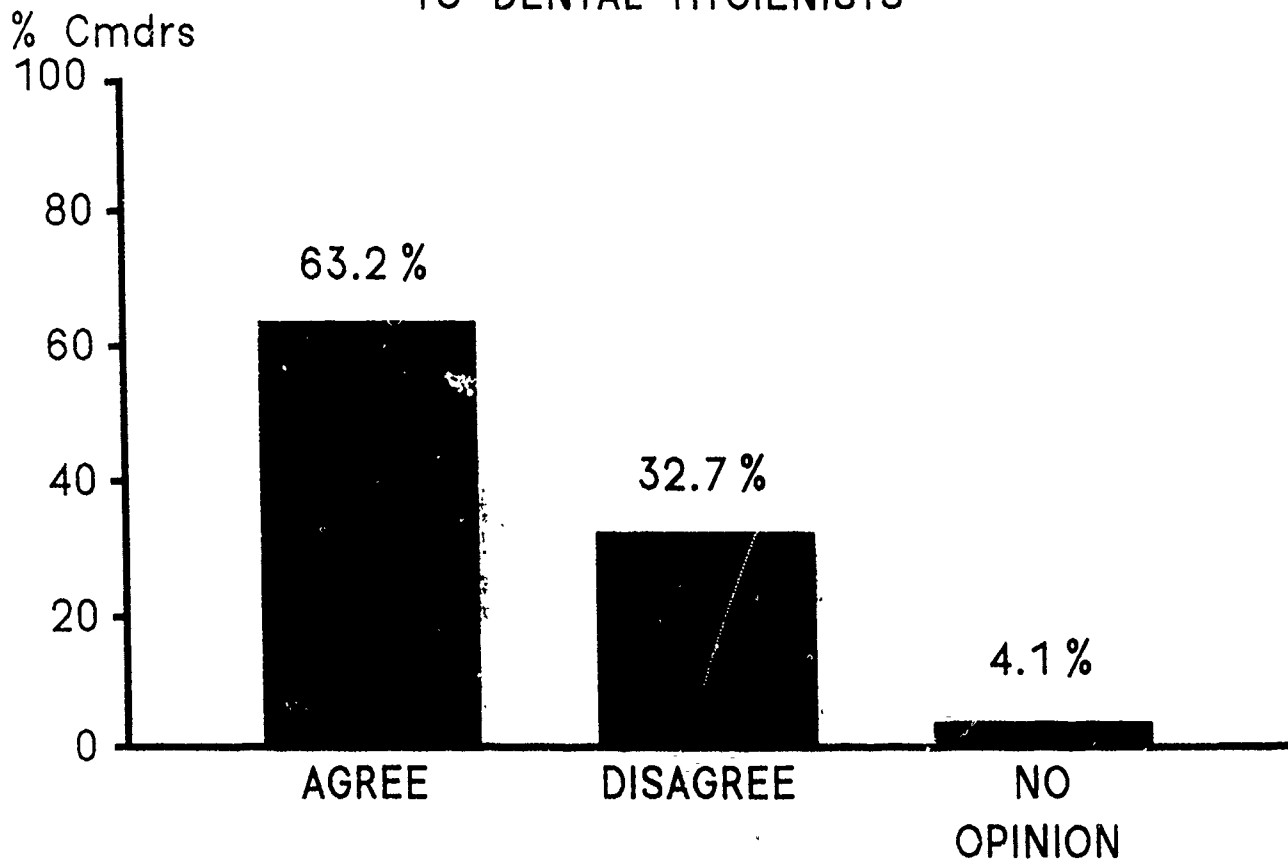


Figure 31

COMMANDERS (TOTAL)

THE ARMY SHOULD SEND SOLDIERS DIRECTLY
FROM AIT TO X2 TRAINING

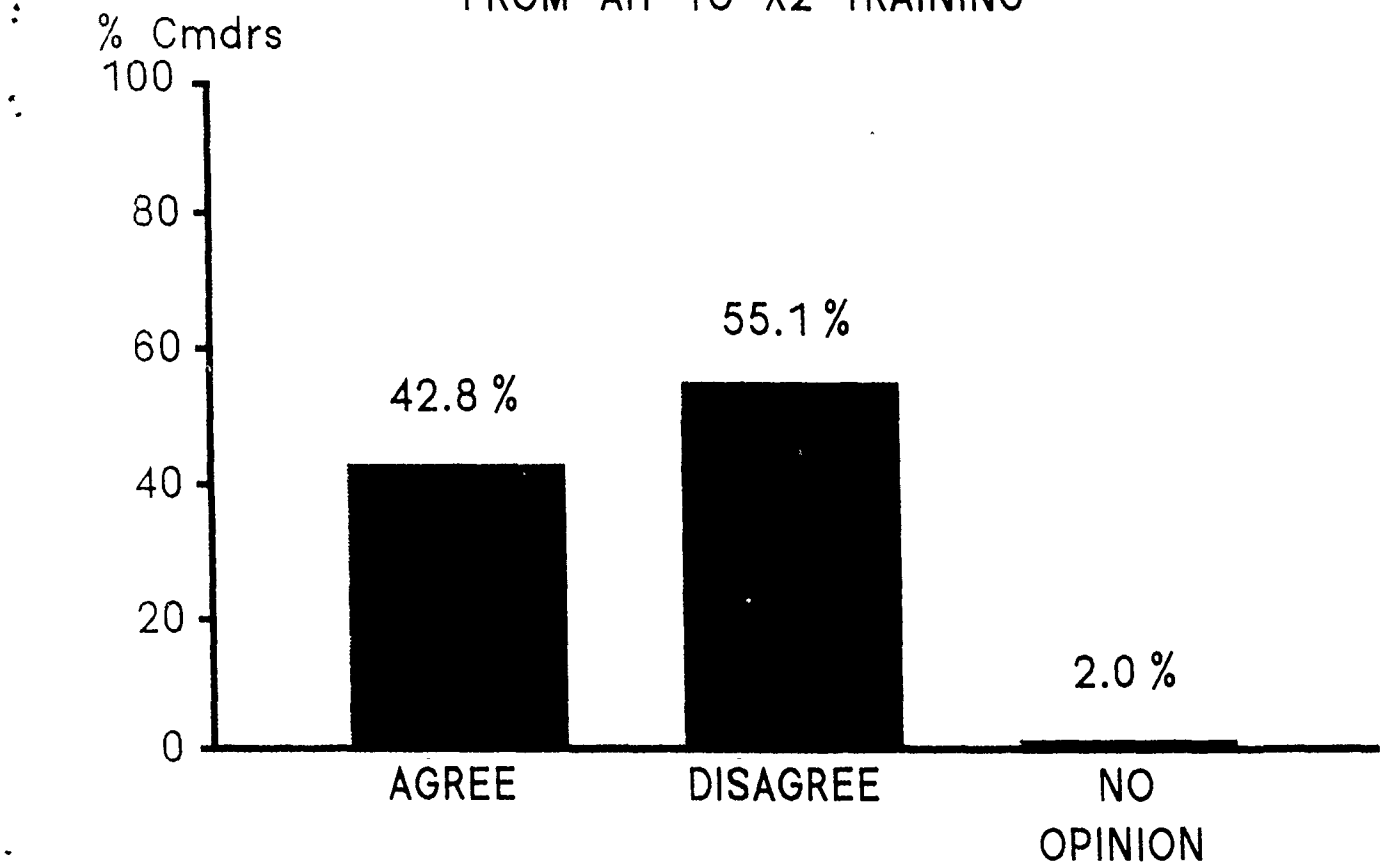


Figure 32

COMMANDERS (TOTAL)

**THE AHS SHOULD DEVELOP A STANDARDIZED
X2 OJT PROGRAM**

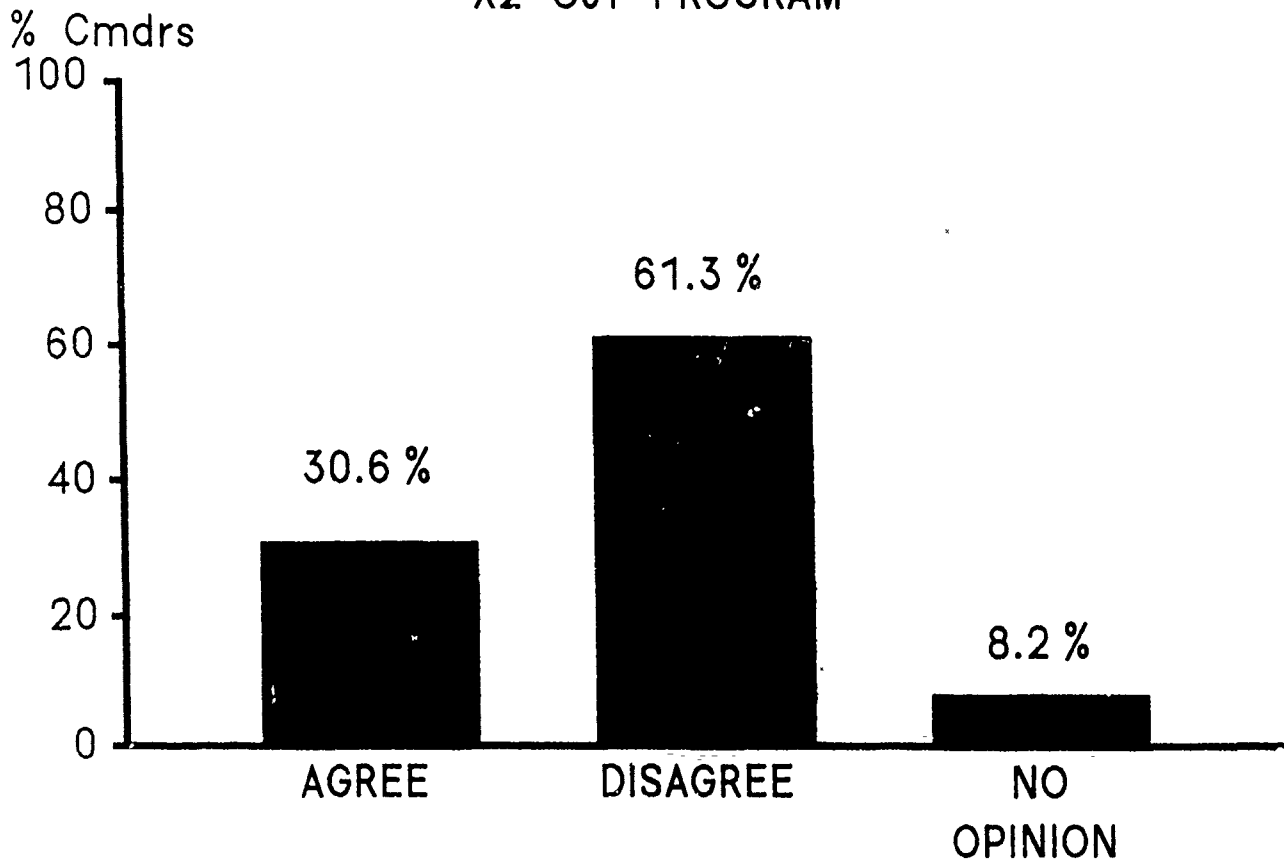


Figure 33

COMMANDERS (TOTAL)

THE ARMY SHOULD DECREASE THE LENGTH OF
X2 TRAINING TO TRAIN MORE X2s

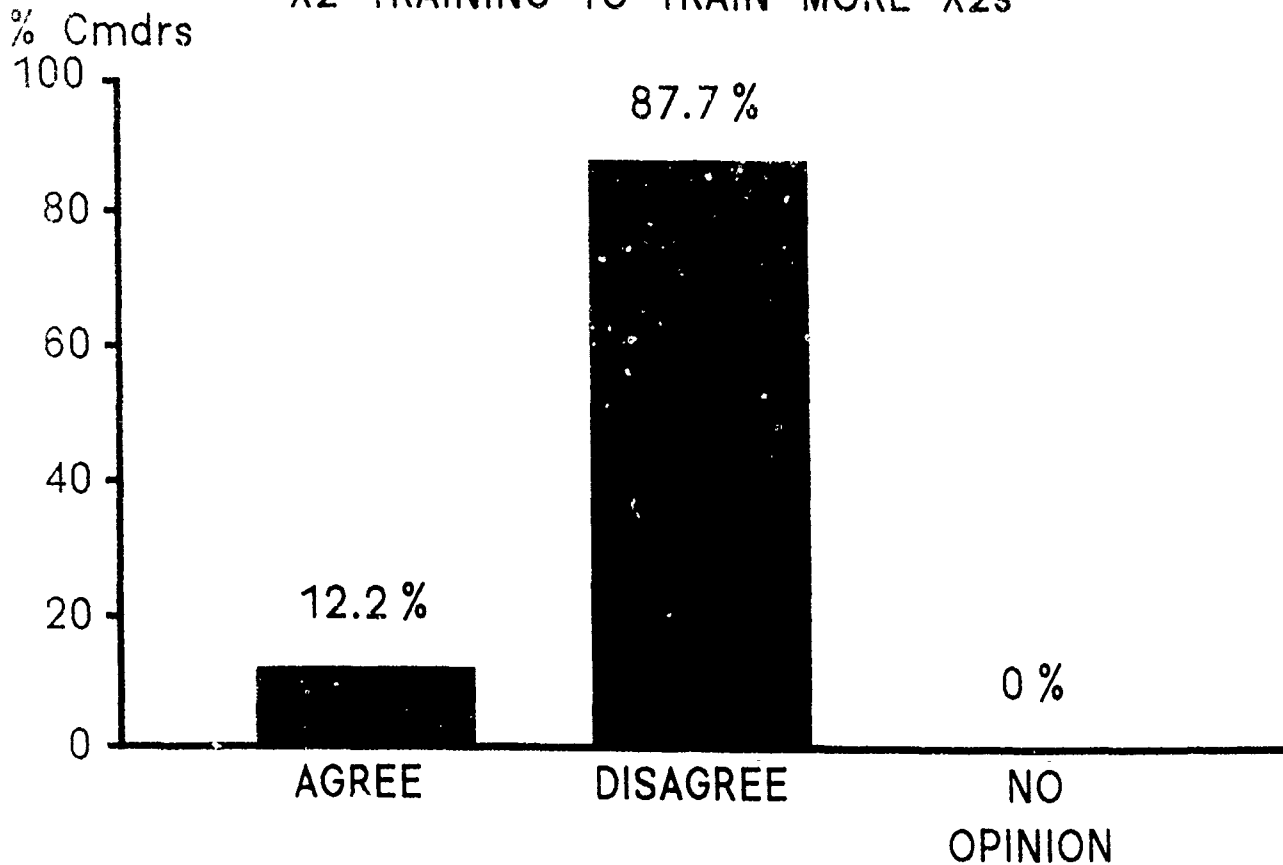


Figure 34

CHIEFS (TOTAL)

THE ARMY SHOULD HIRE MORE CIVILIAN
DENTAL HYGIENISTS

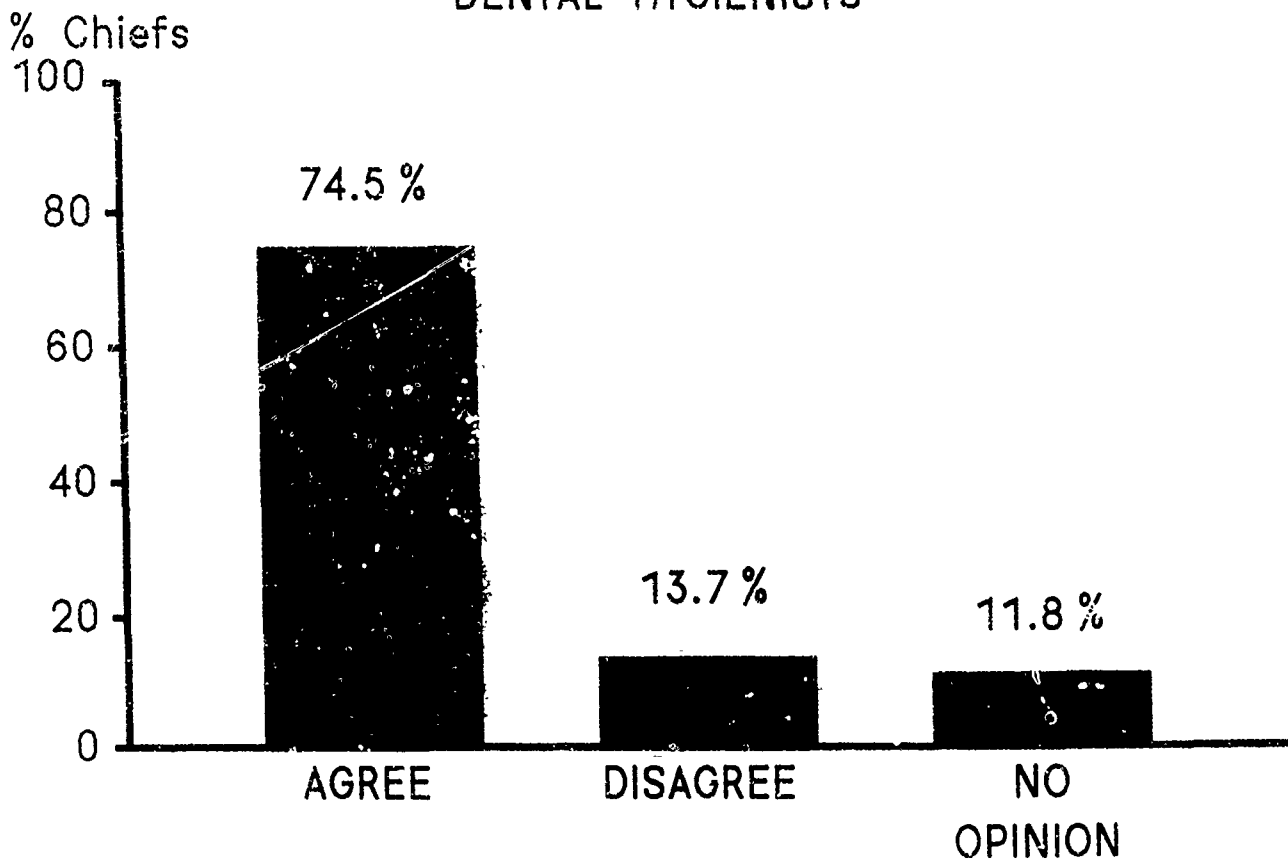


Figure 35

CHIEFS (TOTAL)

THE ARMY SHOULD OFFER WO STATUS
TO DENTAL HYGIENISTS

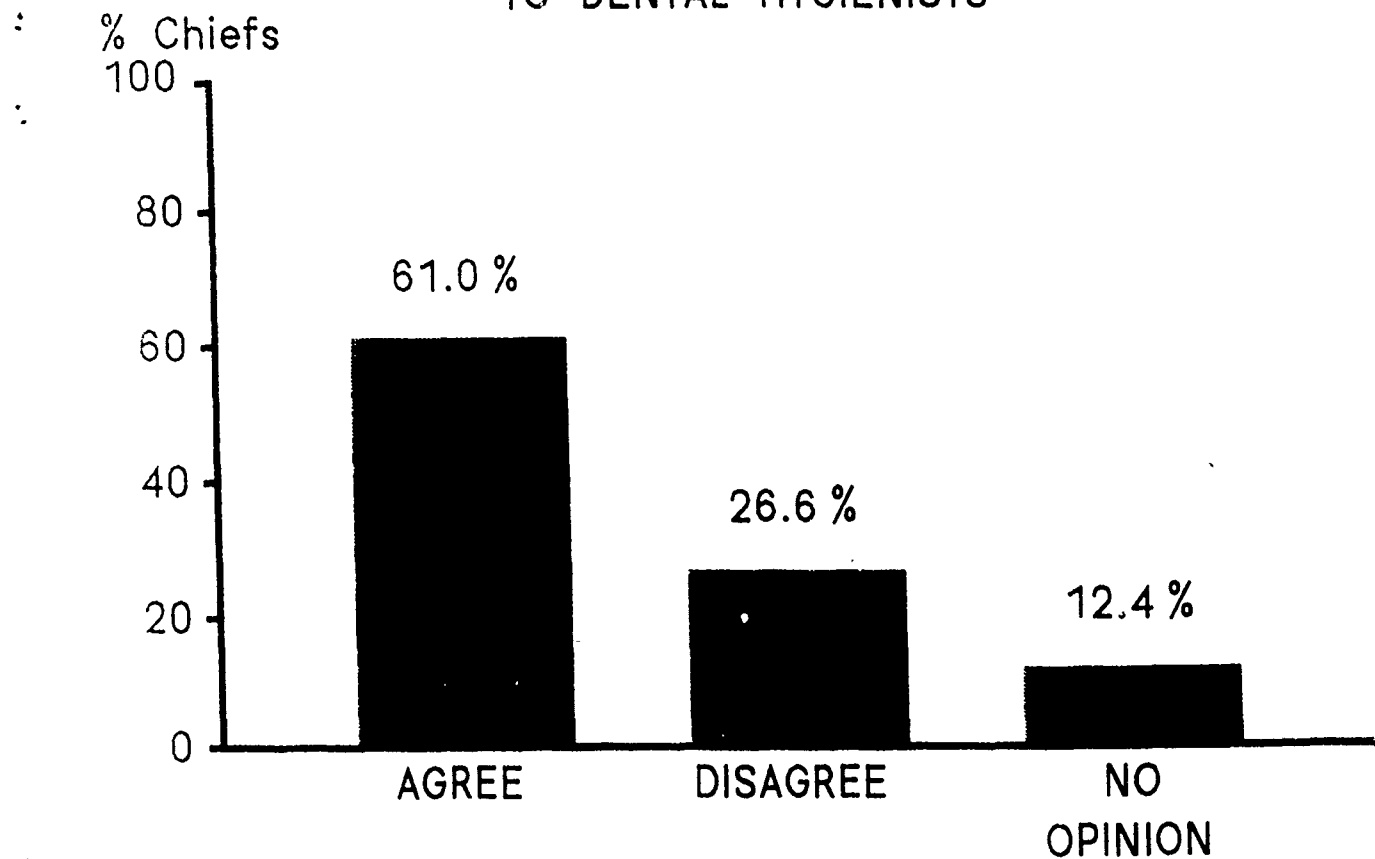


Figure 36

CHIEFS (TOTAL)

THE ARMY SHOULD INCREASE NUMBER OF CLASSES
IN CURRENT X2 TRAINING PROGRAM

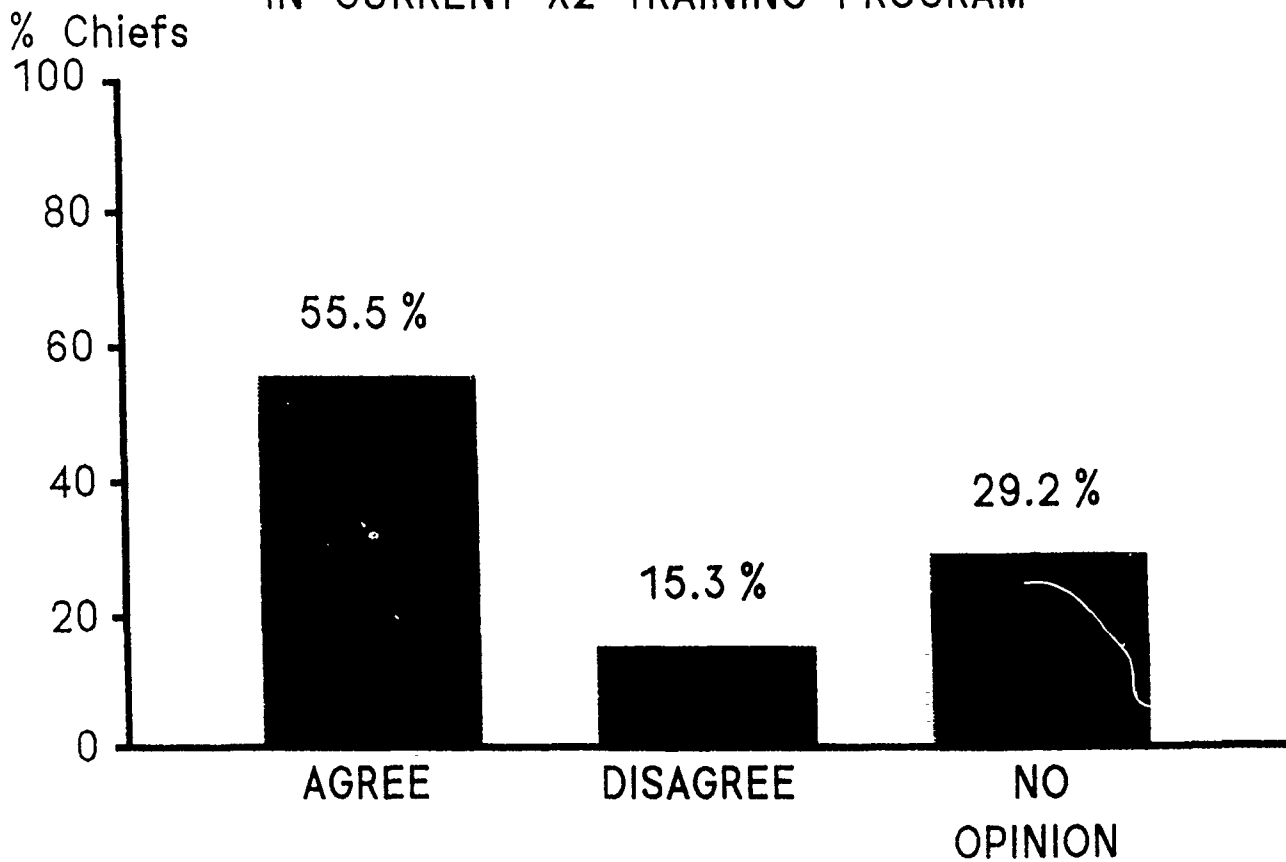


Figure 37

CHIEFS (TOTAL)

THE ARMY SHOULD SEND SOLDIERS DIRECTLY
FROM AIT TO X2 TRAINING

% Chiefs

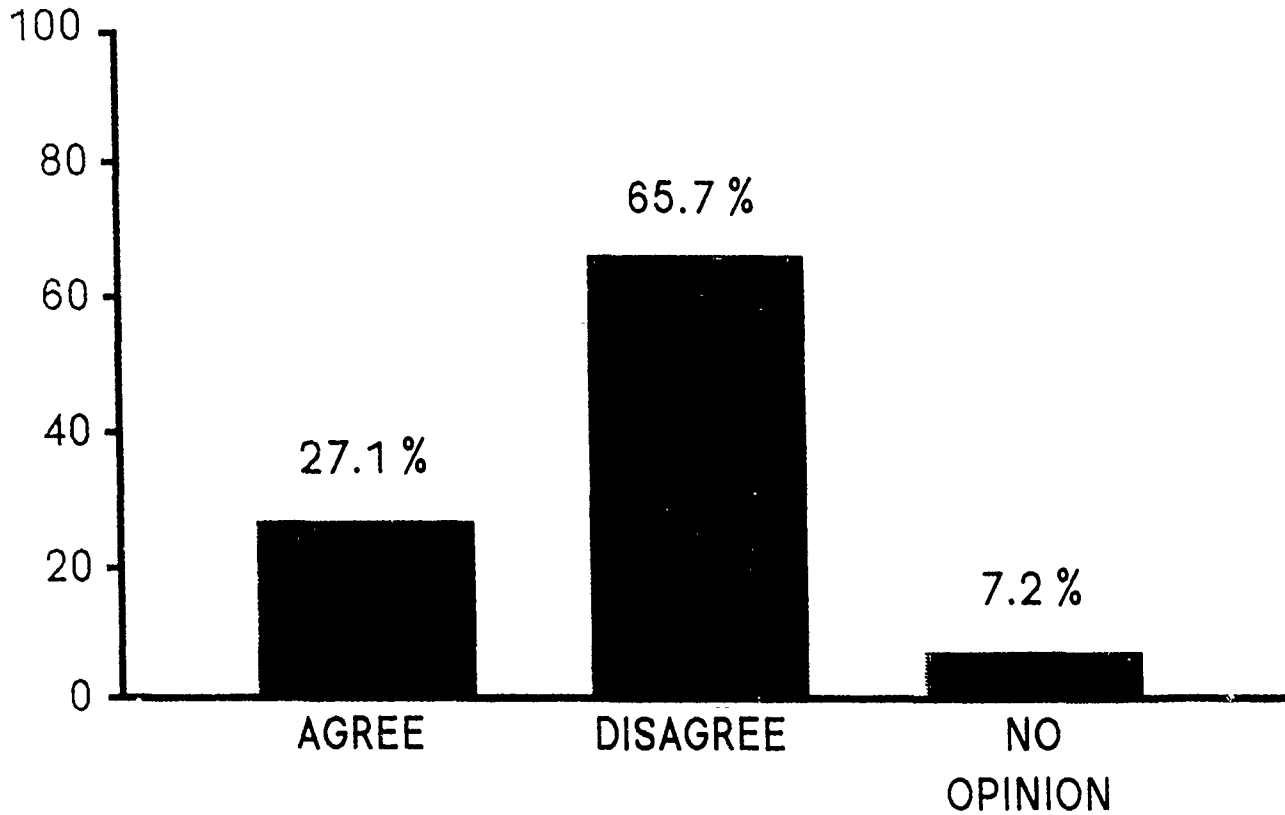


Figure 38

CHIEFS (TOTAL)

THE AHS SHOULD DEVELOP A STANDARDIZED
X2 OJT PROGRAM

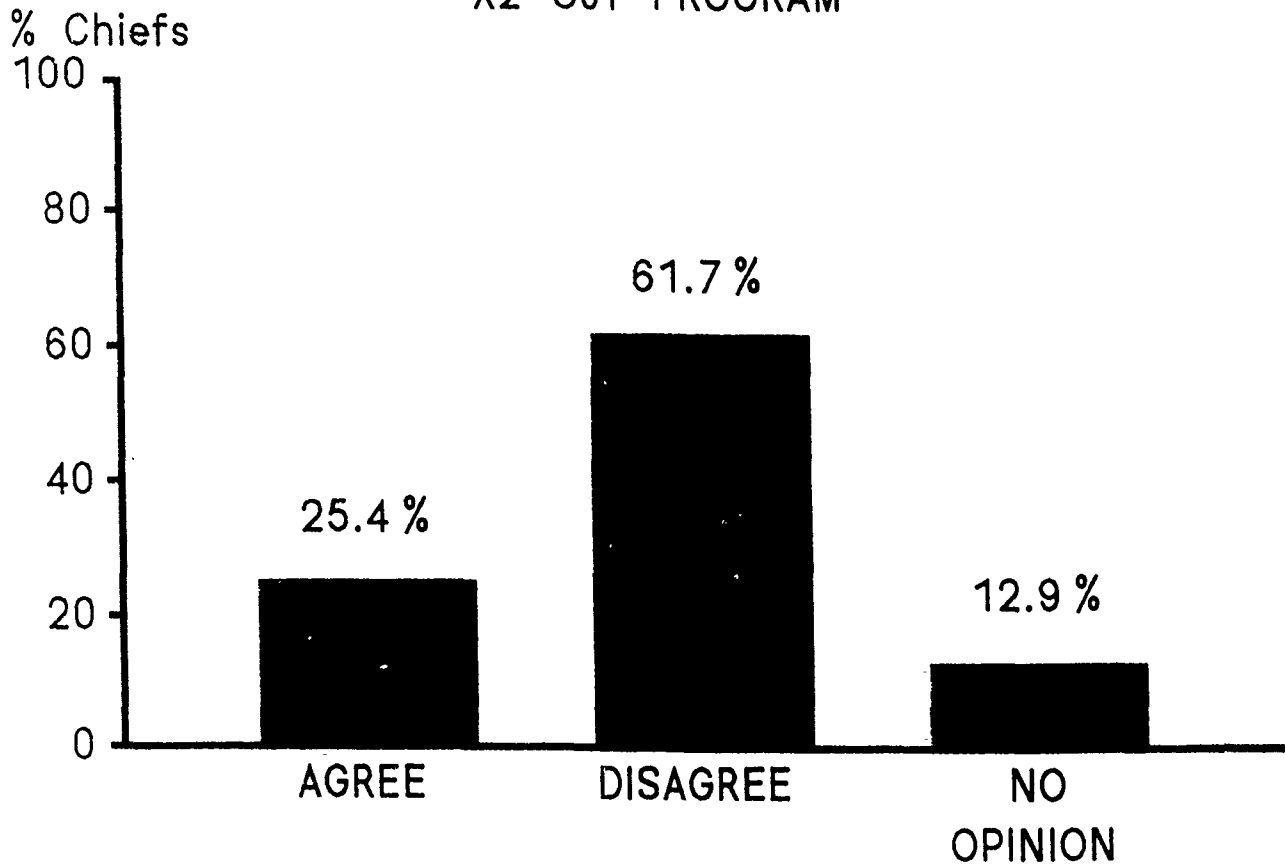


Figure 39

CHIEFS (TOTAL)

THE ARMY SHOULD DECREASE THE LENGTH OF
X2 TRAINING TO TRAIN MORE X2s

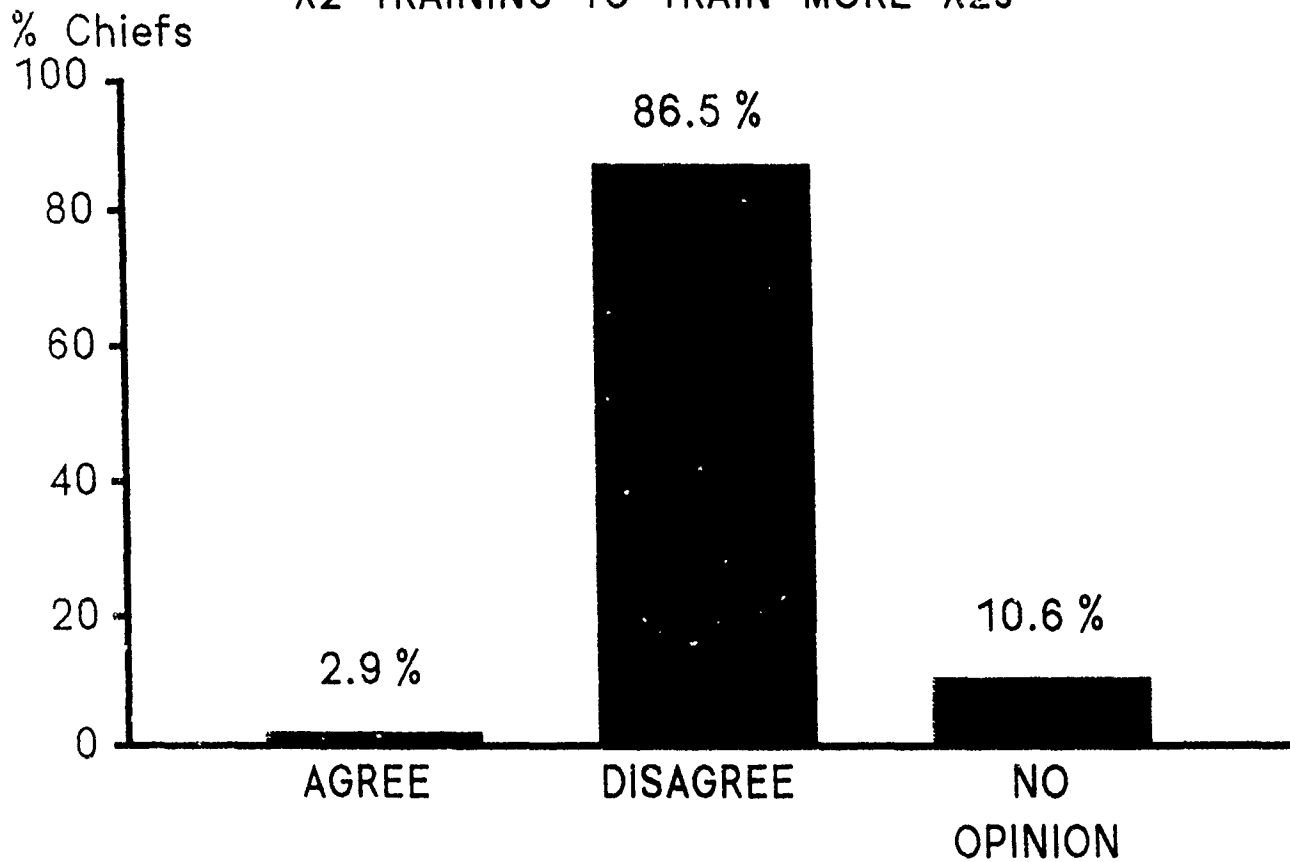


Figure 40

COMMANDERS (TOTAL)

OVERALL RATING OF X2 GRADS' PERFORMANCE

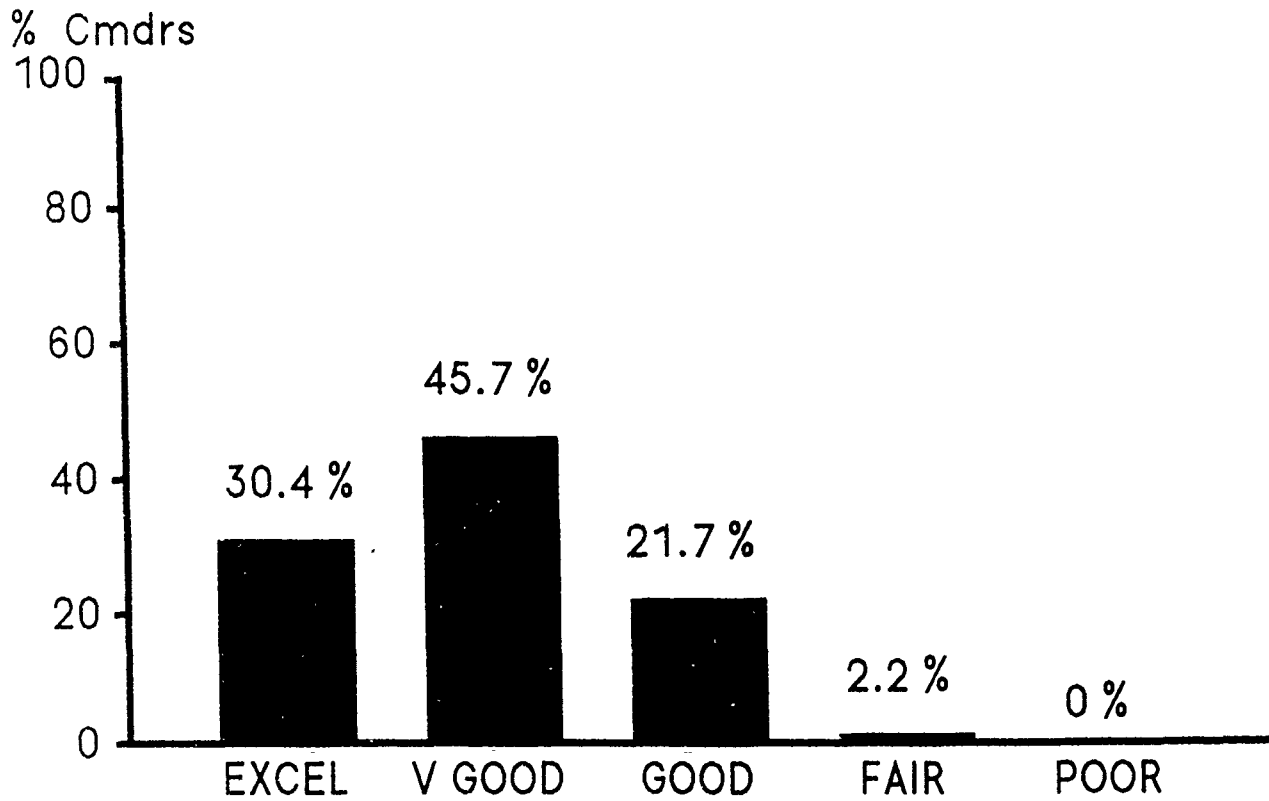


Figure 41

CHIEFS (TOTAL)

OVERALL RATING OF X2 GRADS' PERFORMANCE

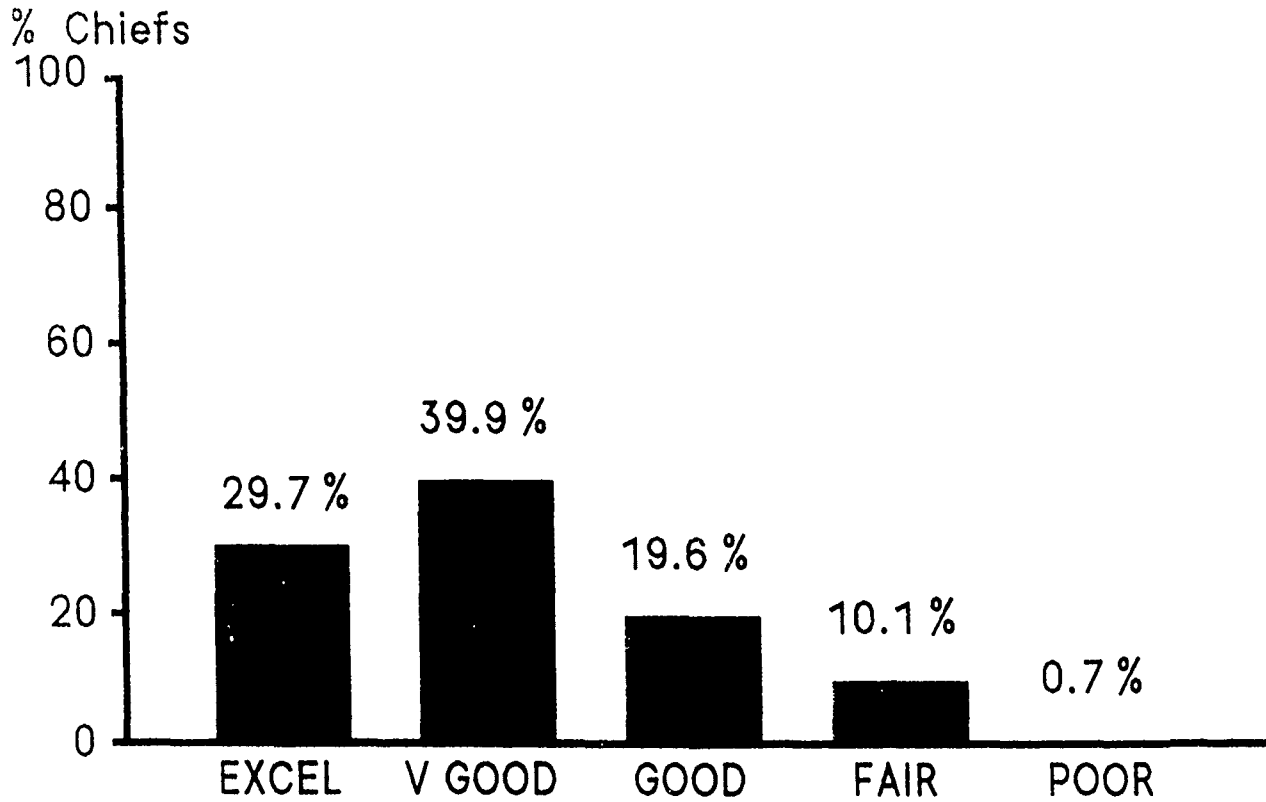


Figure 42

DOCTORS (TOTAL)

OVERALL RATING OF X2 DTA's PERFORMANCE

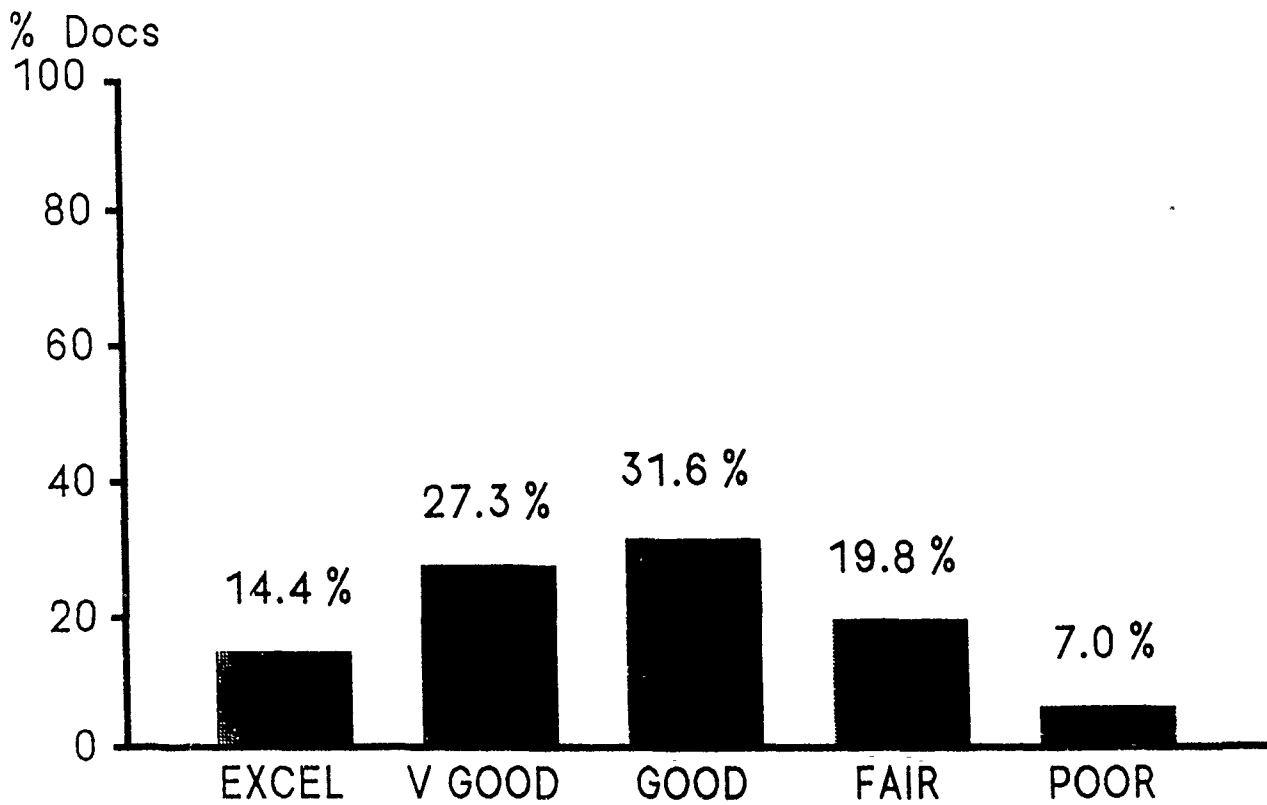


Figure 43

DO X2s MEET QUALITY ASSURANCE STANDARDS ?

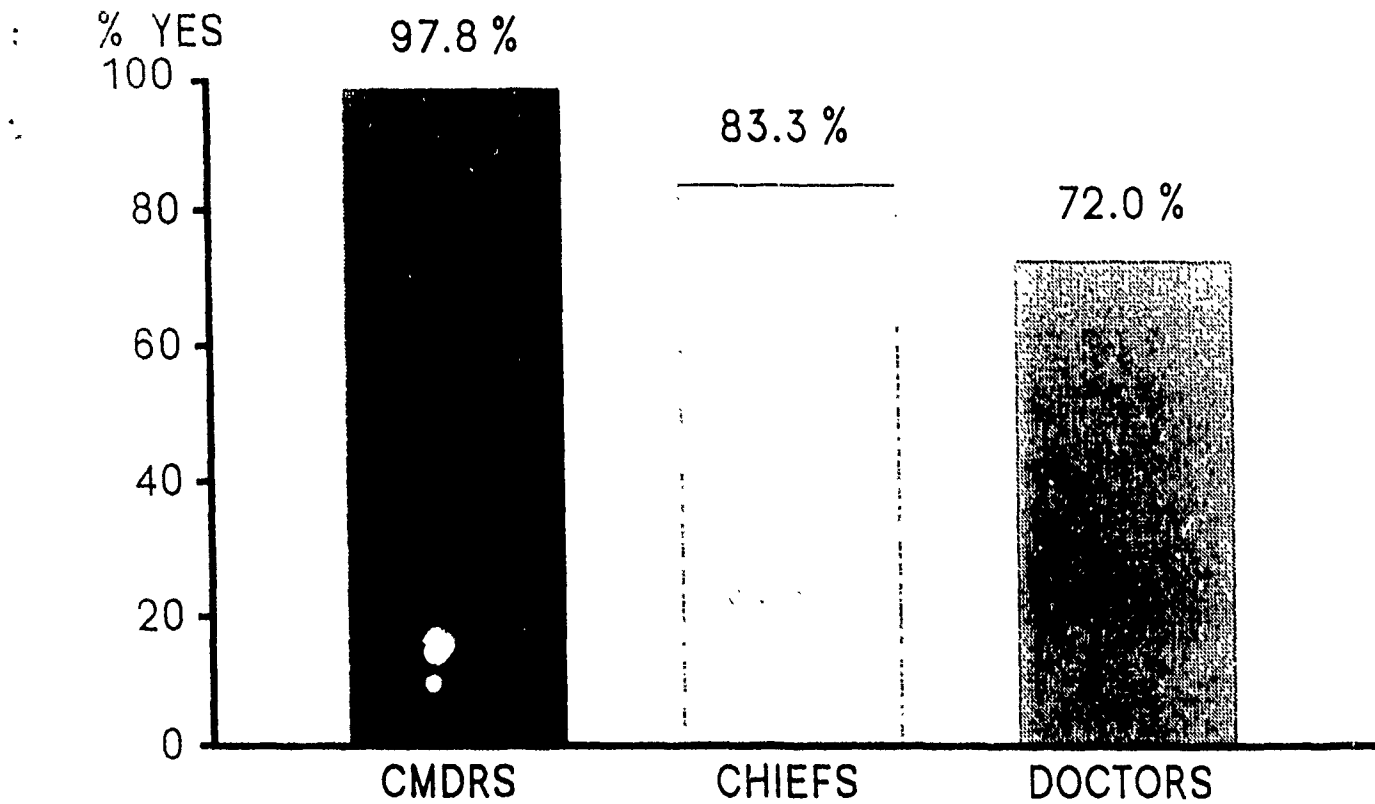


Figure 44

ARE X2s ADEQUATELY TRAINED TO PLACE AND CARVE RESTORATIONS ?

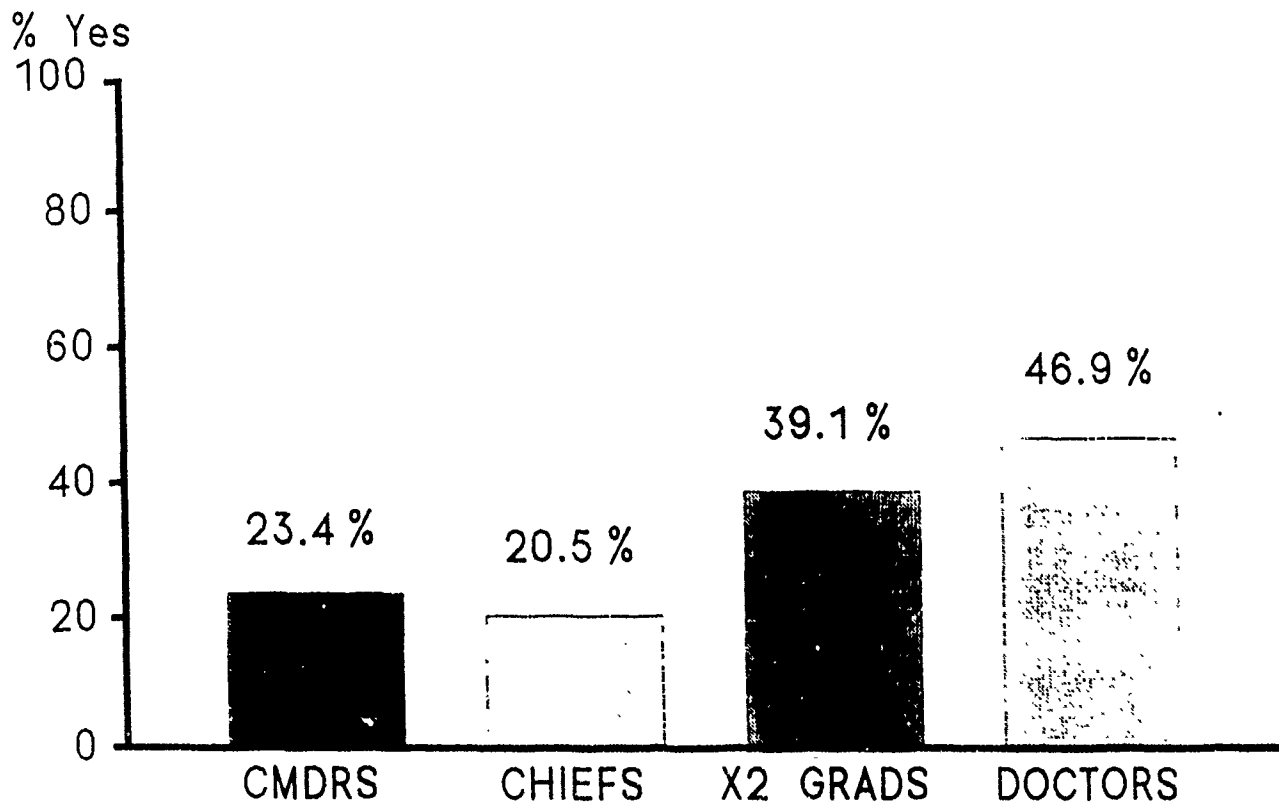


Figure 45

X2s PROVIDE SUBSTANDARD HYGIENE CARE

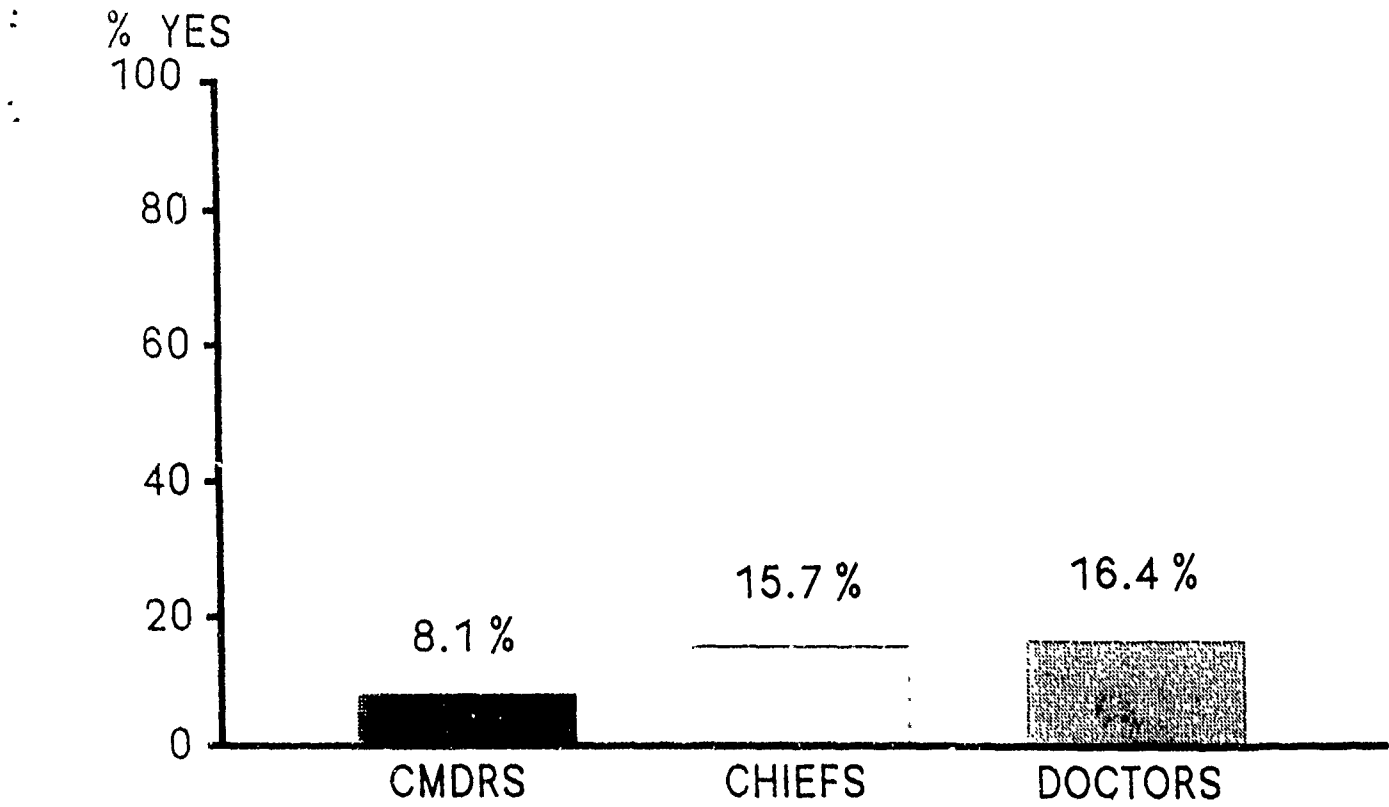


Figure 46

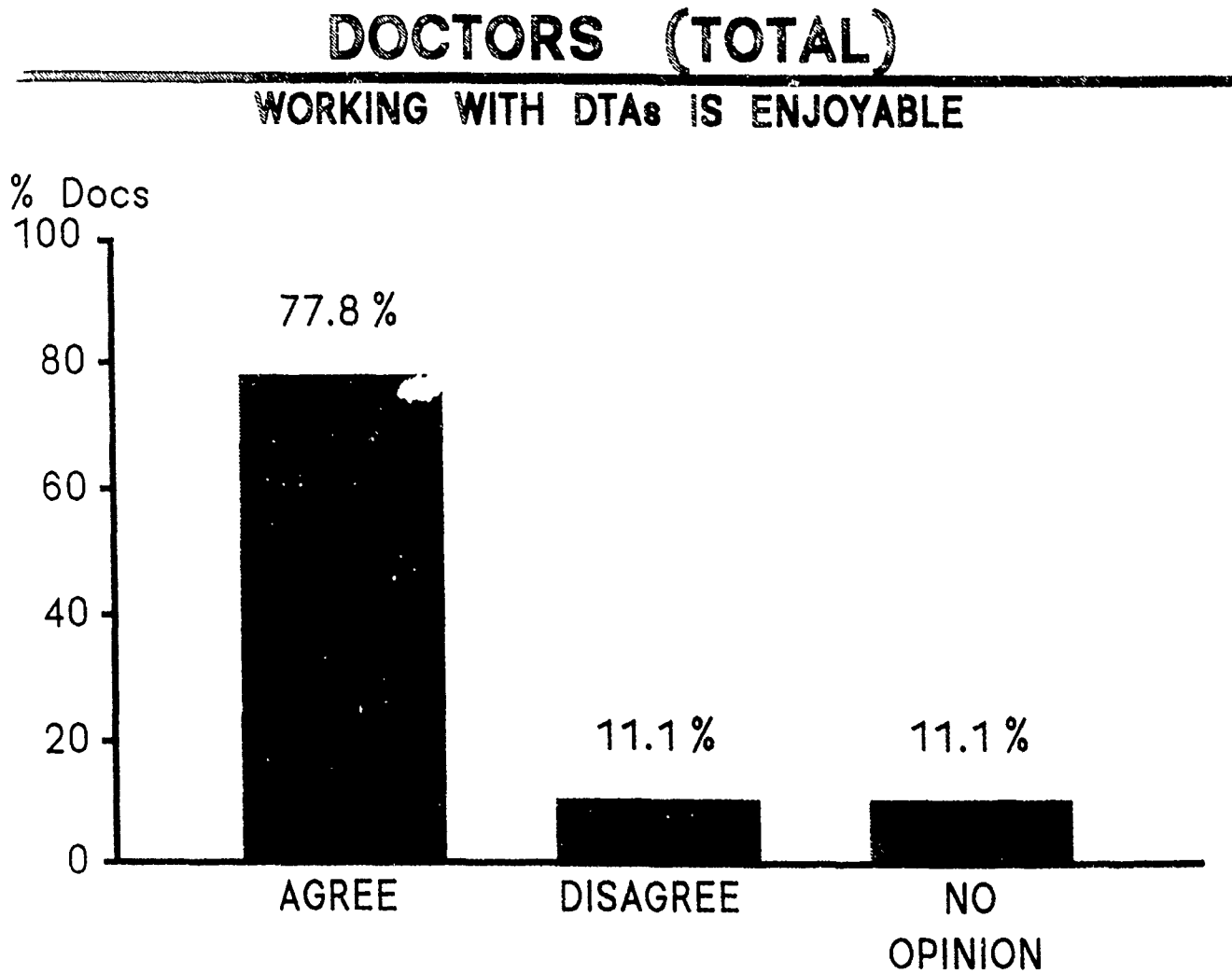


Figure 47

COMMANDERS (TOTAL)

HOW DO X2 DTAs AFFECT OUTPUT OF
RESTORATIVE SERVICES ?

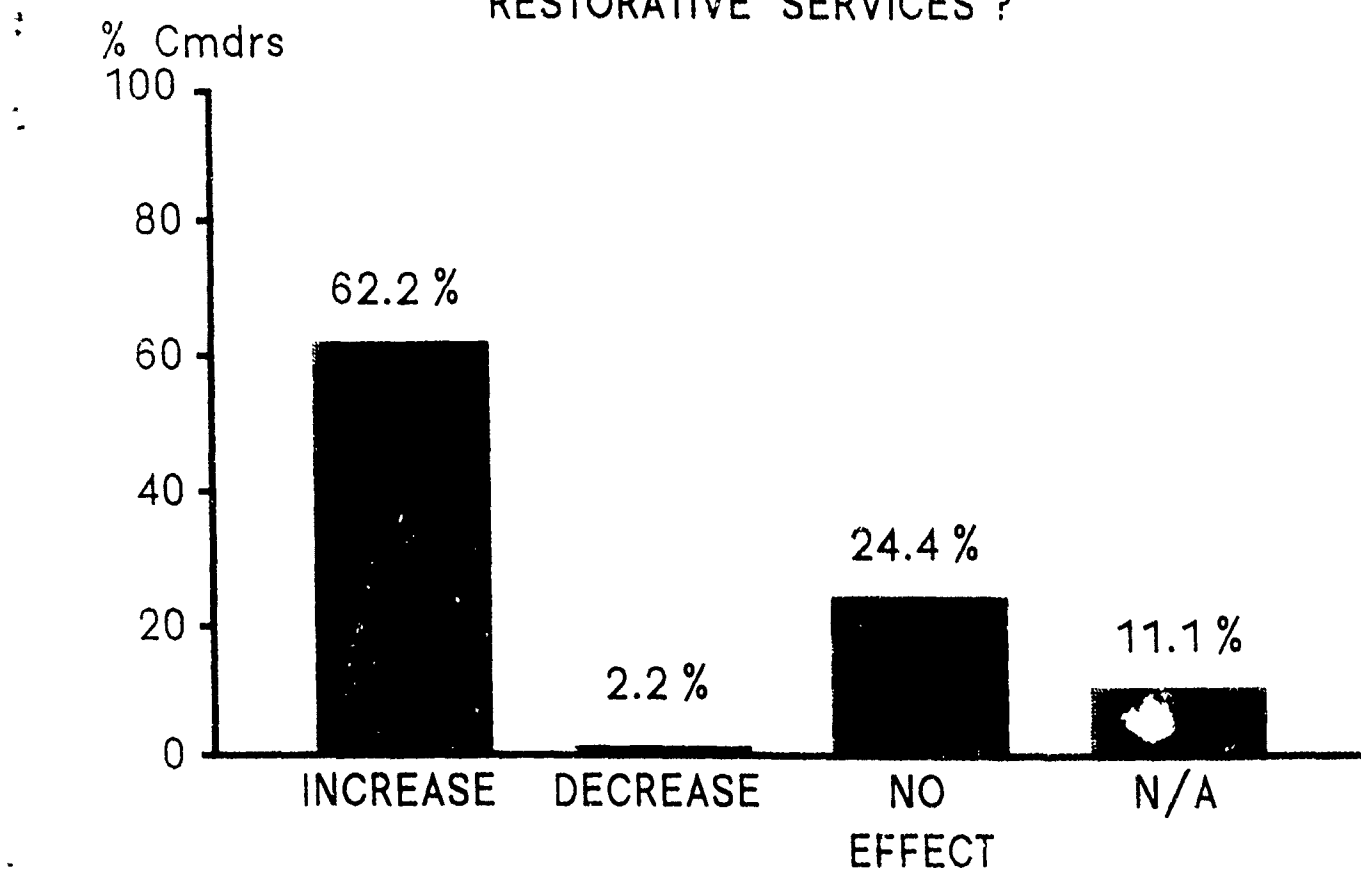


Figure 48

DOCTORS (TOTAL)

WITH RESPECT TO PERFORMANCE, COMPARE
MILITARY TO CIVILIAN DTAs

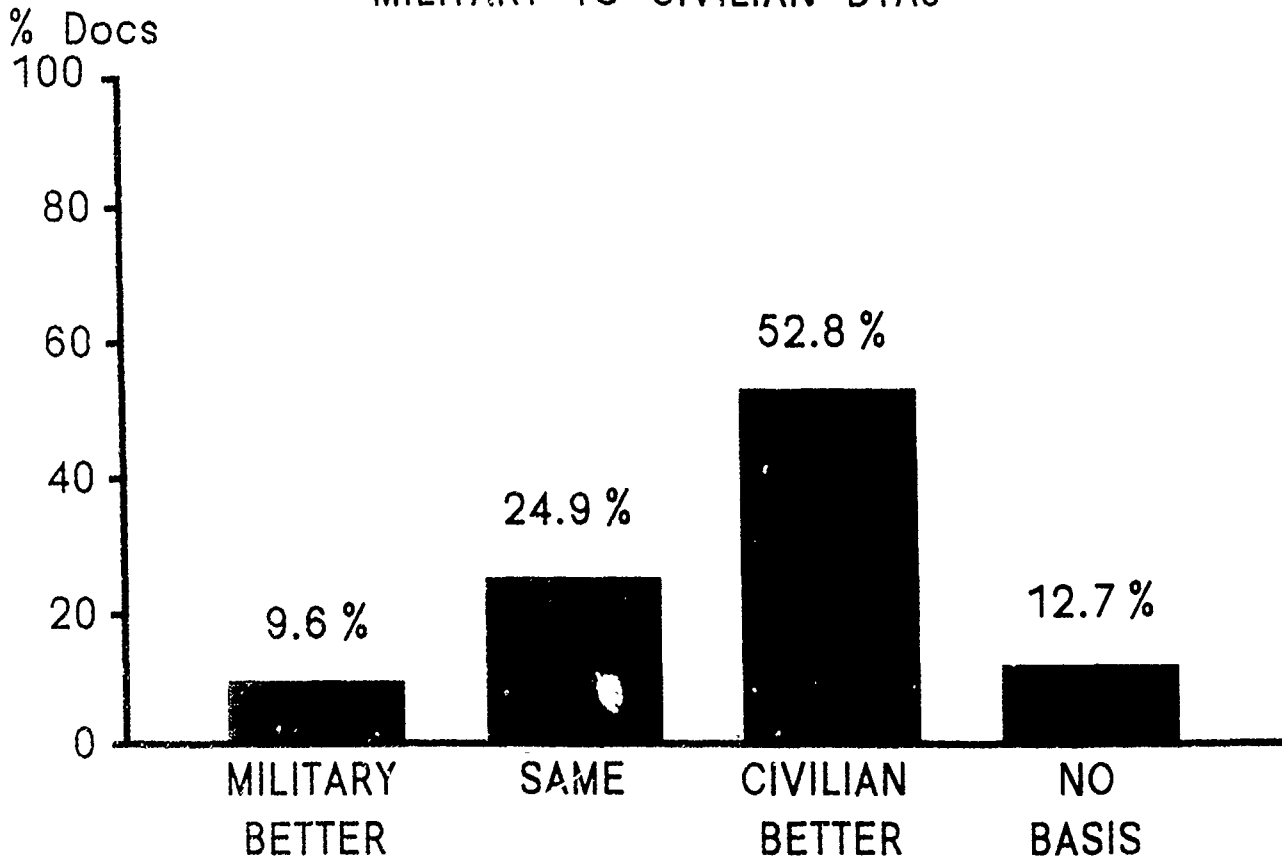


Figure 49

DOCTORS (TOTAL)

WITH RESPECT TO PRODUCTIVITY, COMPARE
MILITARY TO CIVILIAN DTAs

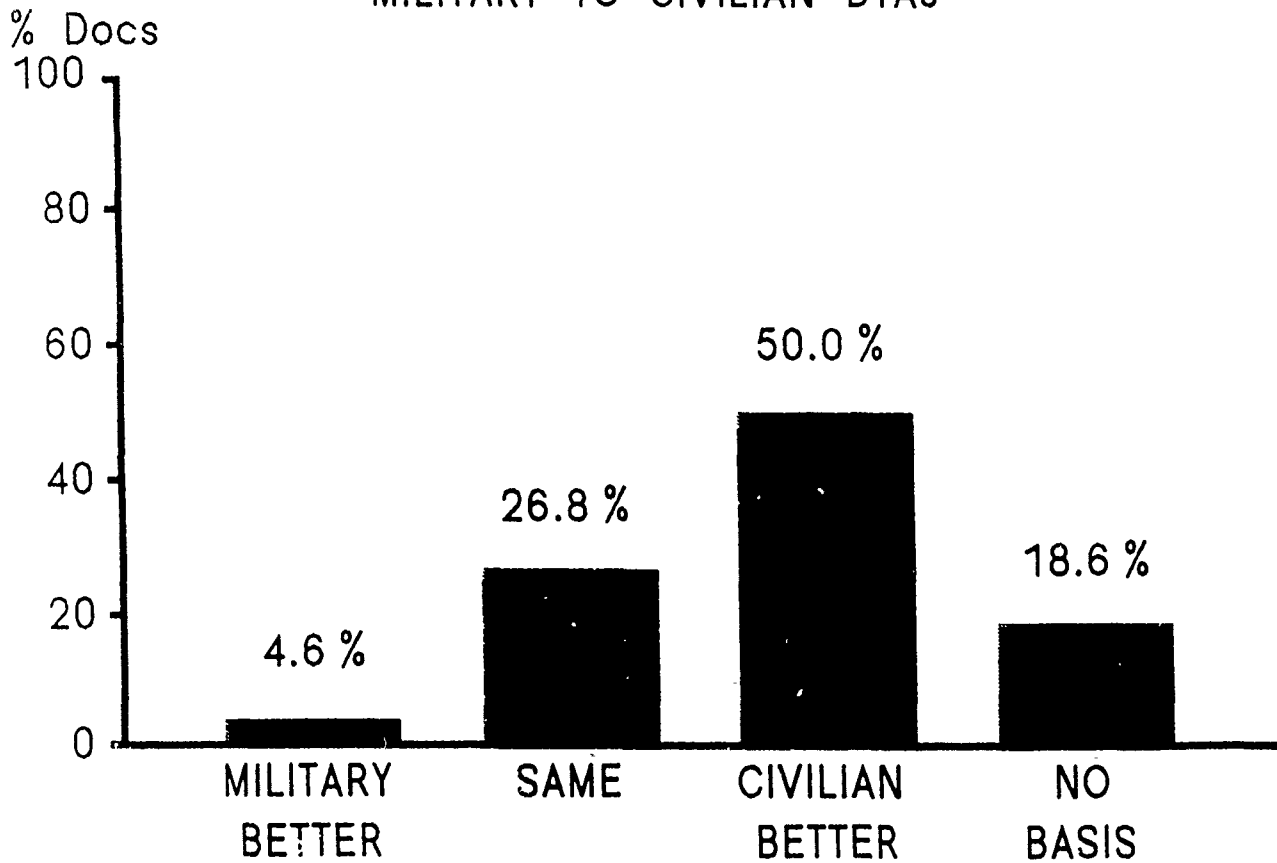


Figure 50

COMMANDERS (TOTAL)

SHOULD X2 TRAINING BE LENGTHENED ?

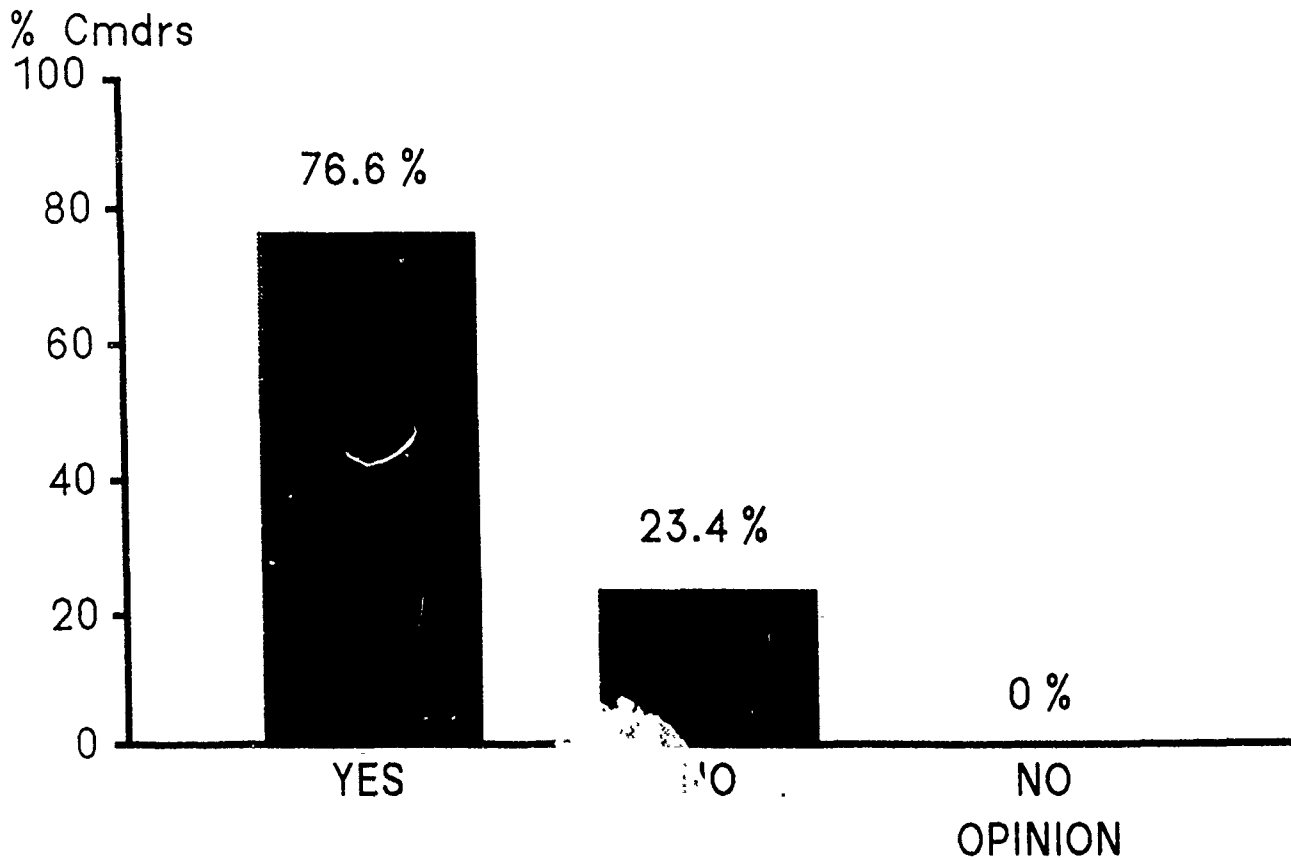


Figure 51

CHIEFS (TOTAL)

SHOULD X2 TRAINING BE LENGTHENED ?

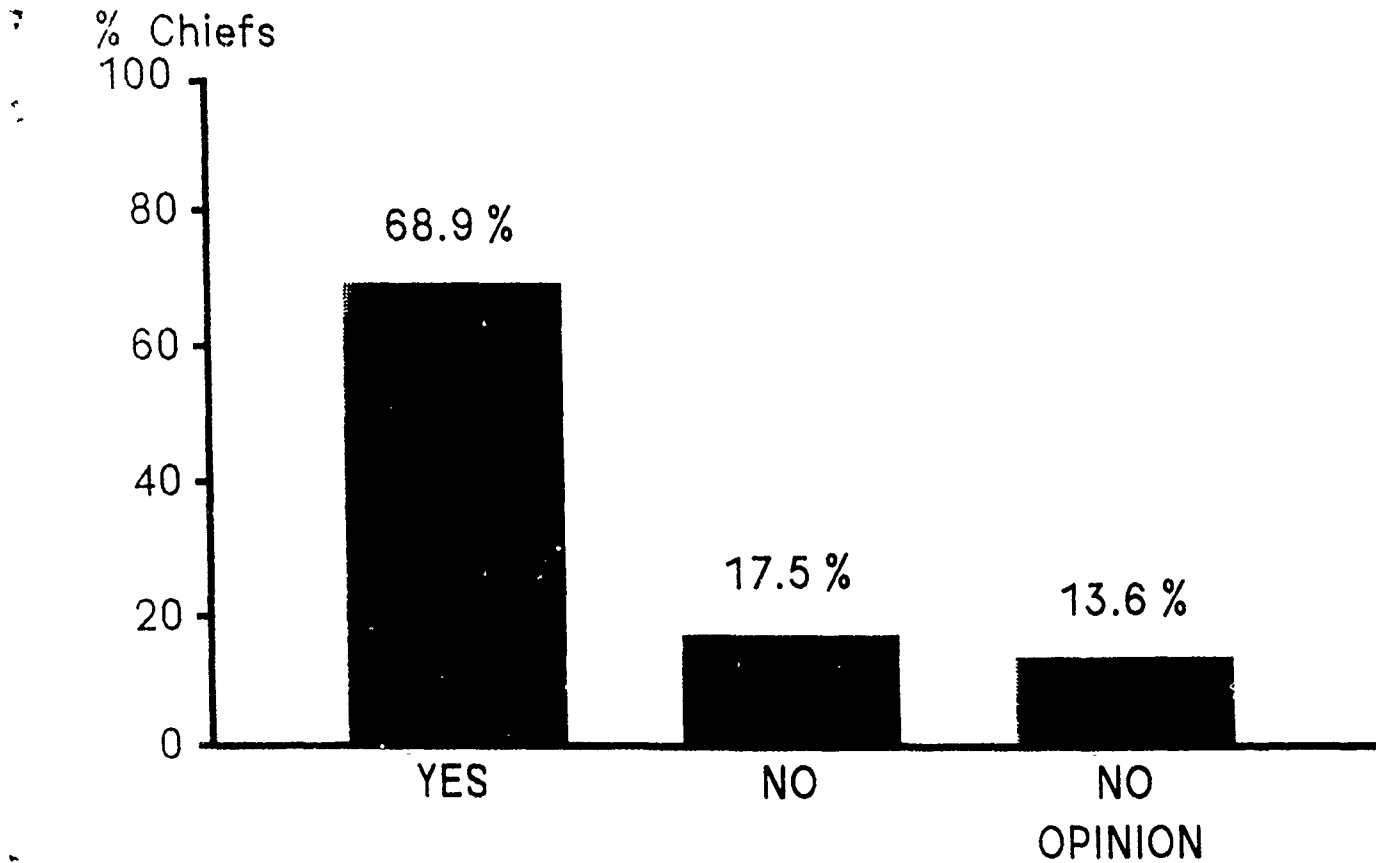


Figure 52

GRADUATES (TOTAL)

SHOULD X2 TRAINING BE LENGTHENED ?

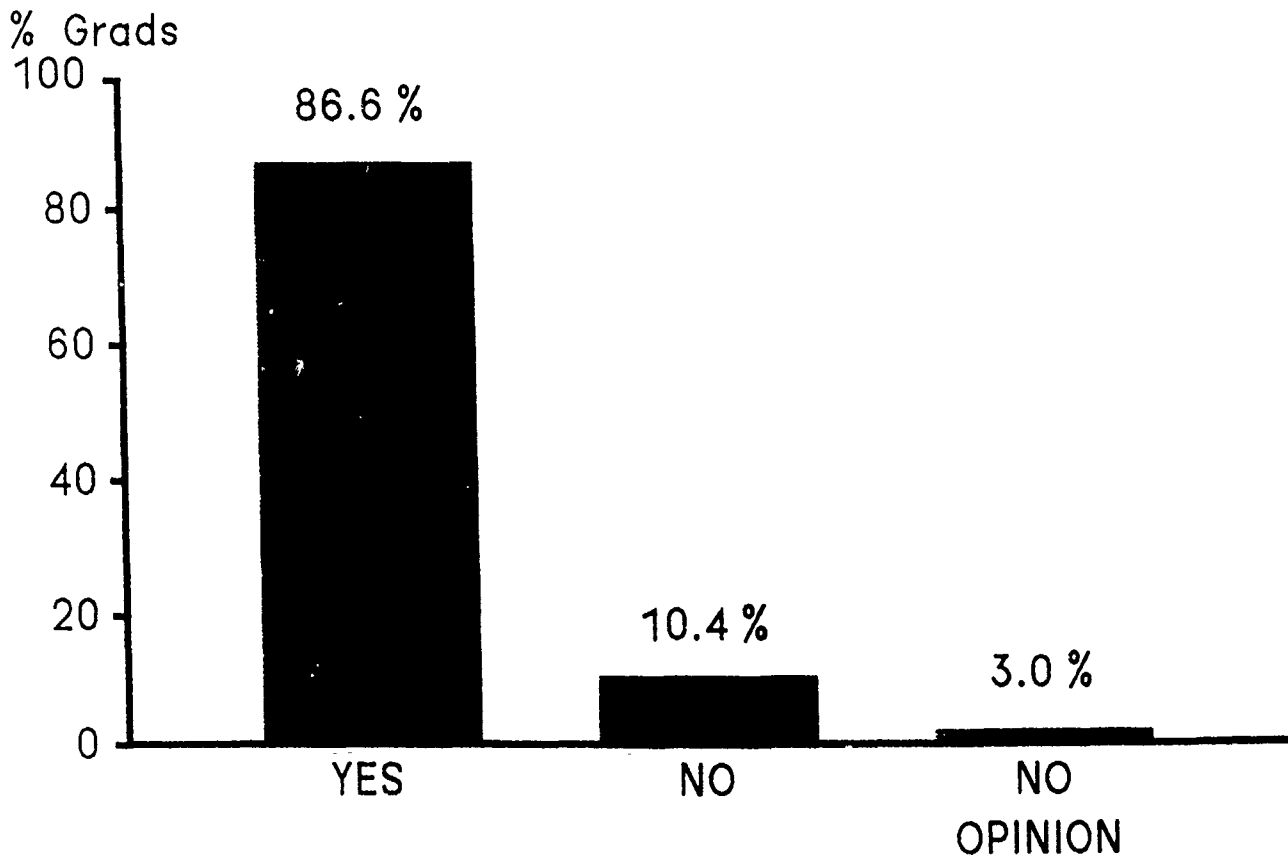


Figure 53

COMMANDERS (TOTAL)

HOW LONG SHOULD X2 TRAINING BE ?

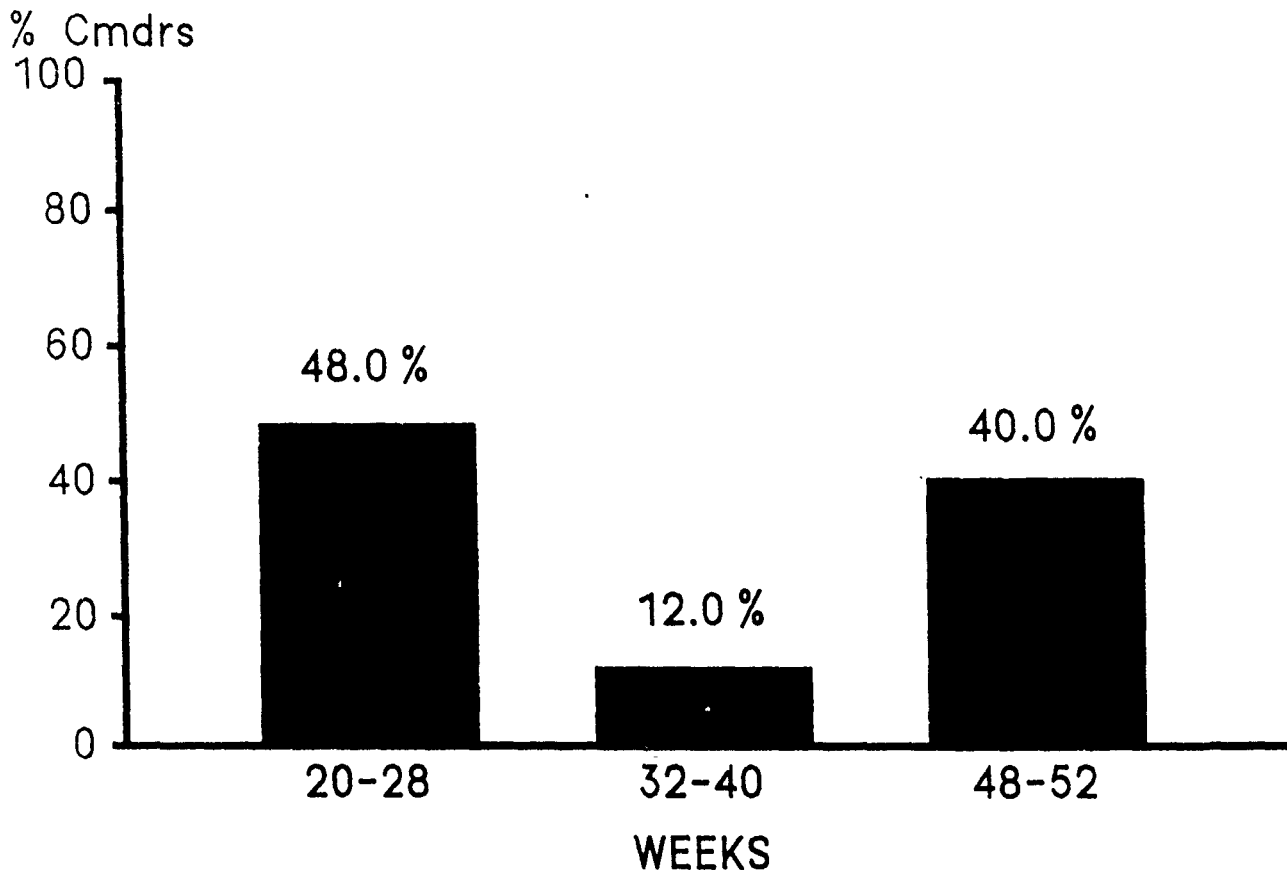


Figure 54

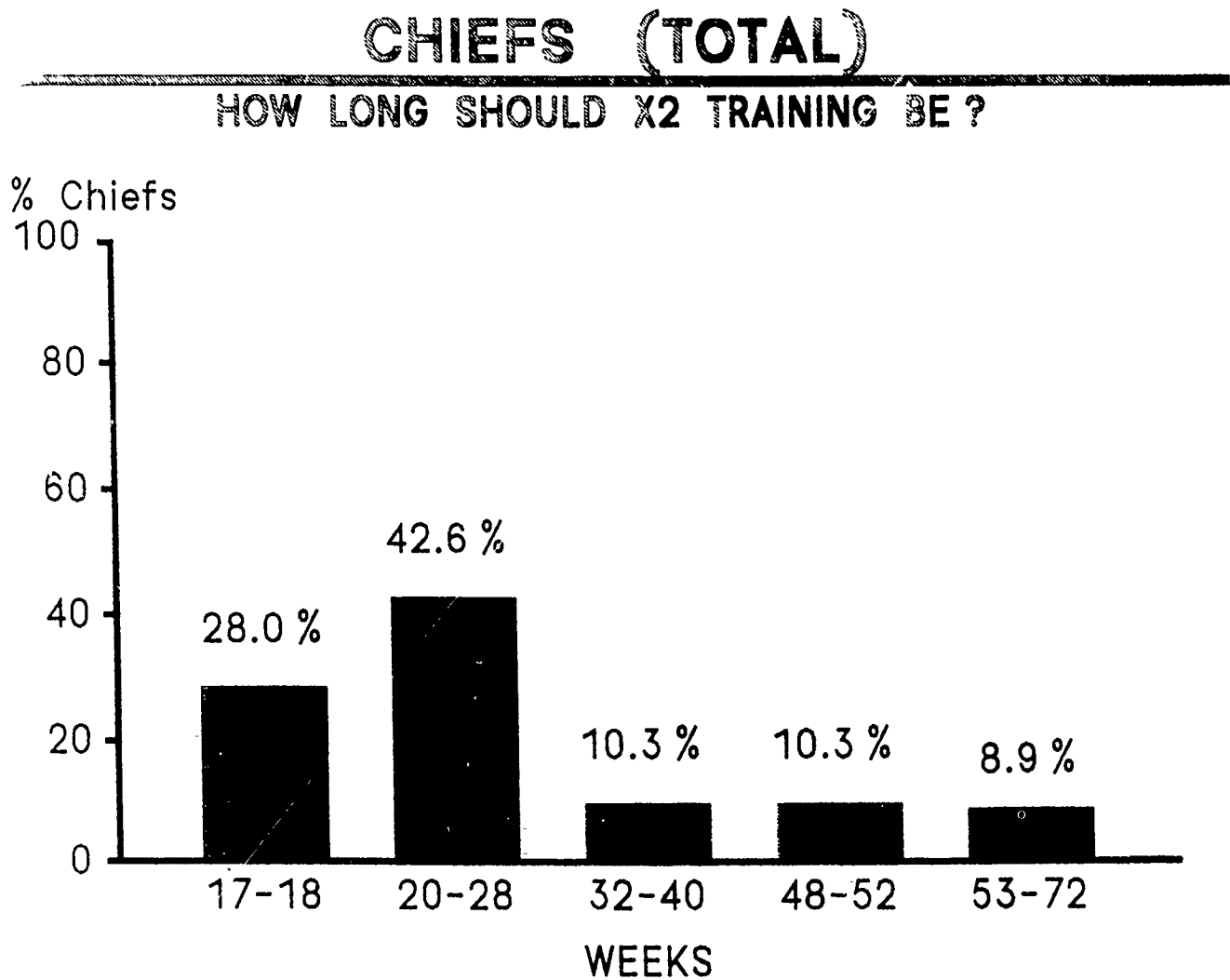


Figure 55

GRADUATES (TOTAL)

HOW LONG SHOULD X2 TRAINING BE ?

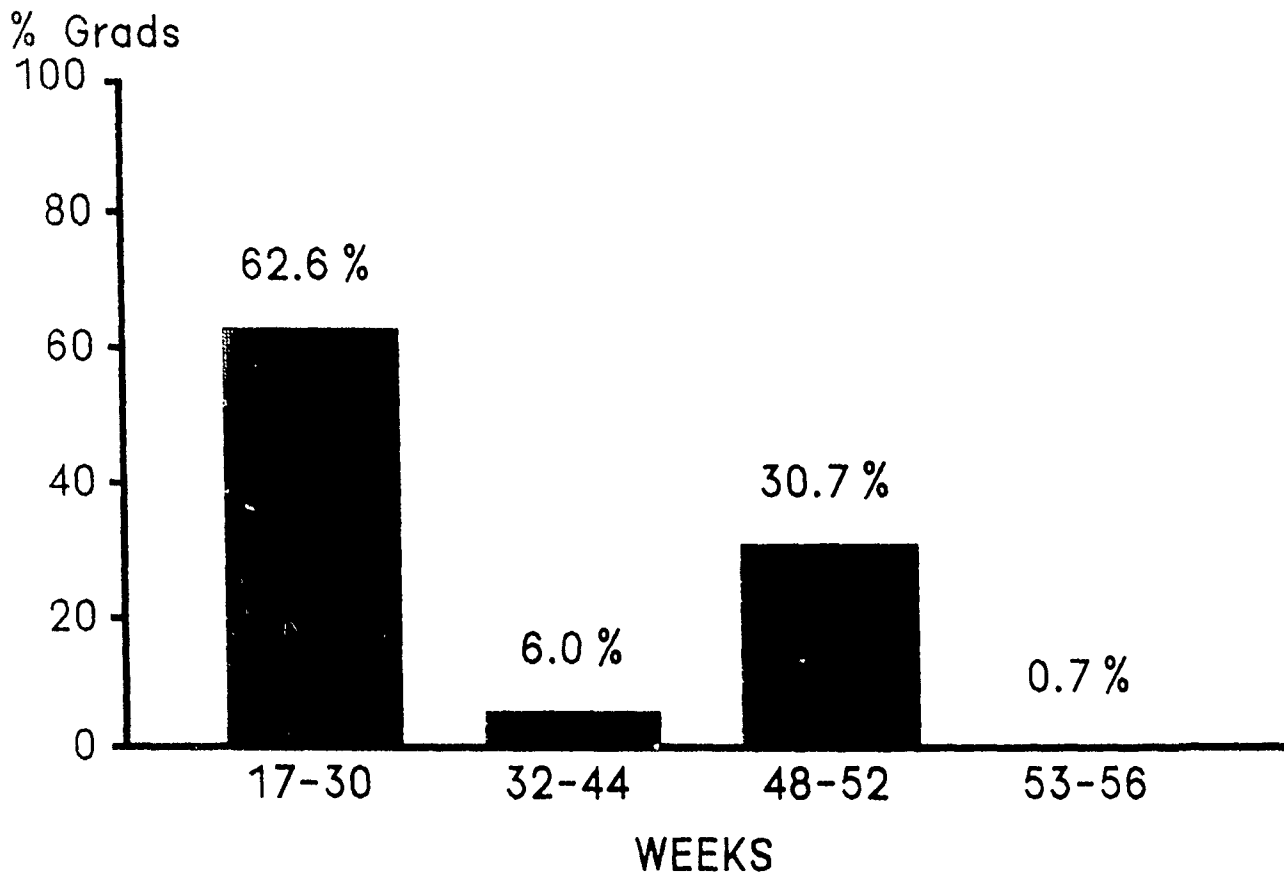


Figure 56

COMMANDERS (TOTAL)

WOULD YOU FAVOR AN X2 COURSE QUALIFYING
GRADS FOR A STATE BOARD ?

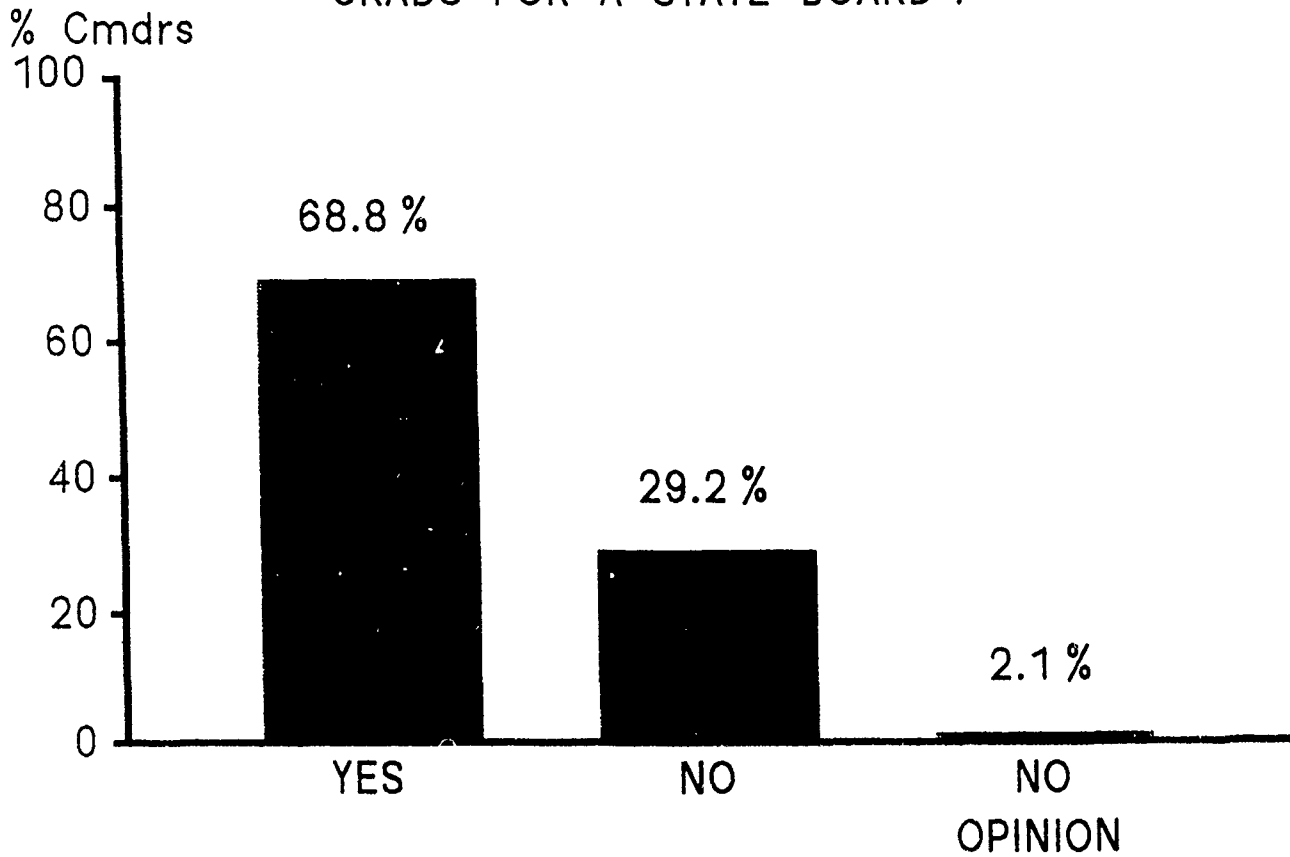


Figure 57

CHIEFS (TOTAL)

WOULD YOU FAVOR AN X2 COURSE QUALIFYING
GRADS FOR A STATE BOARD ?

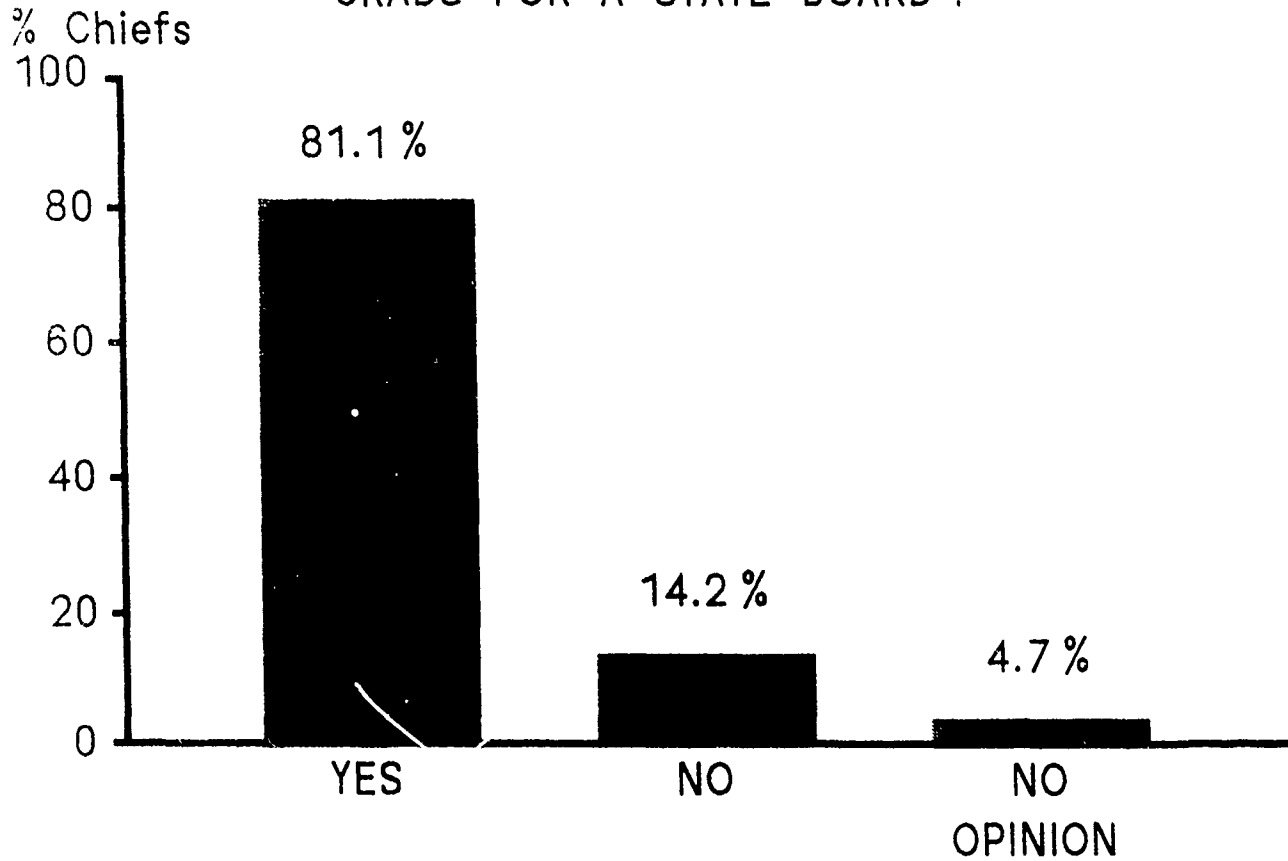


Figure 58

GRADUATES (TOTAL)

**WOULD YOU FAVOR AN X2 COURSE QUALIFYING
GRADS FOR A STATE BOARD ?**

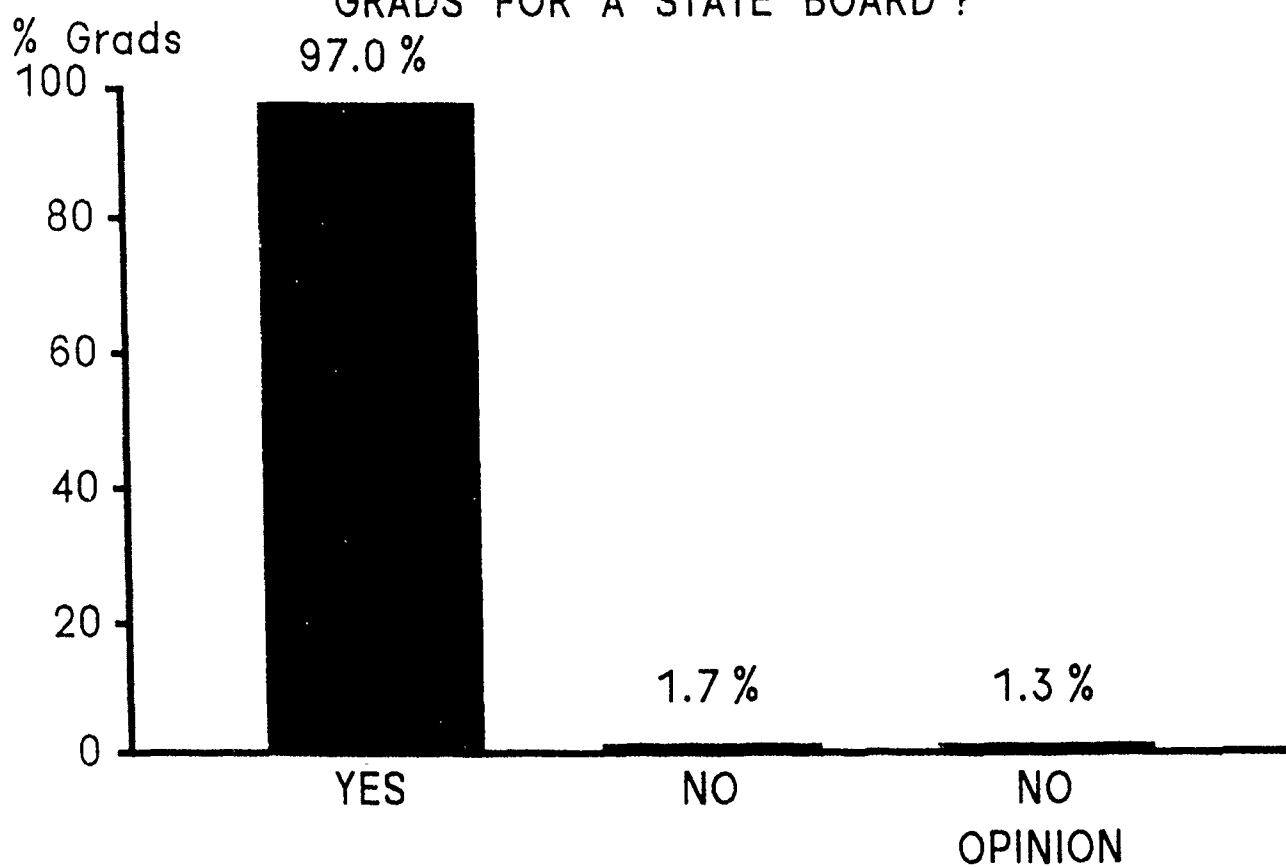


Figure 59

DO YOU SHOULD FEEL OBLIGATED TO PROVIDE CARE BY LICENSED HYGIENISTS

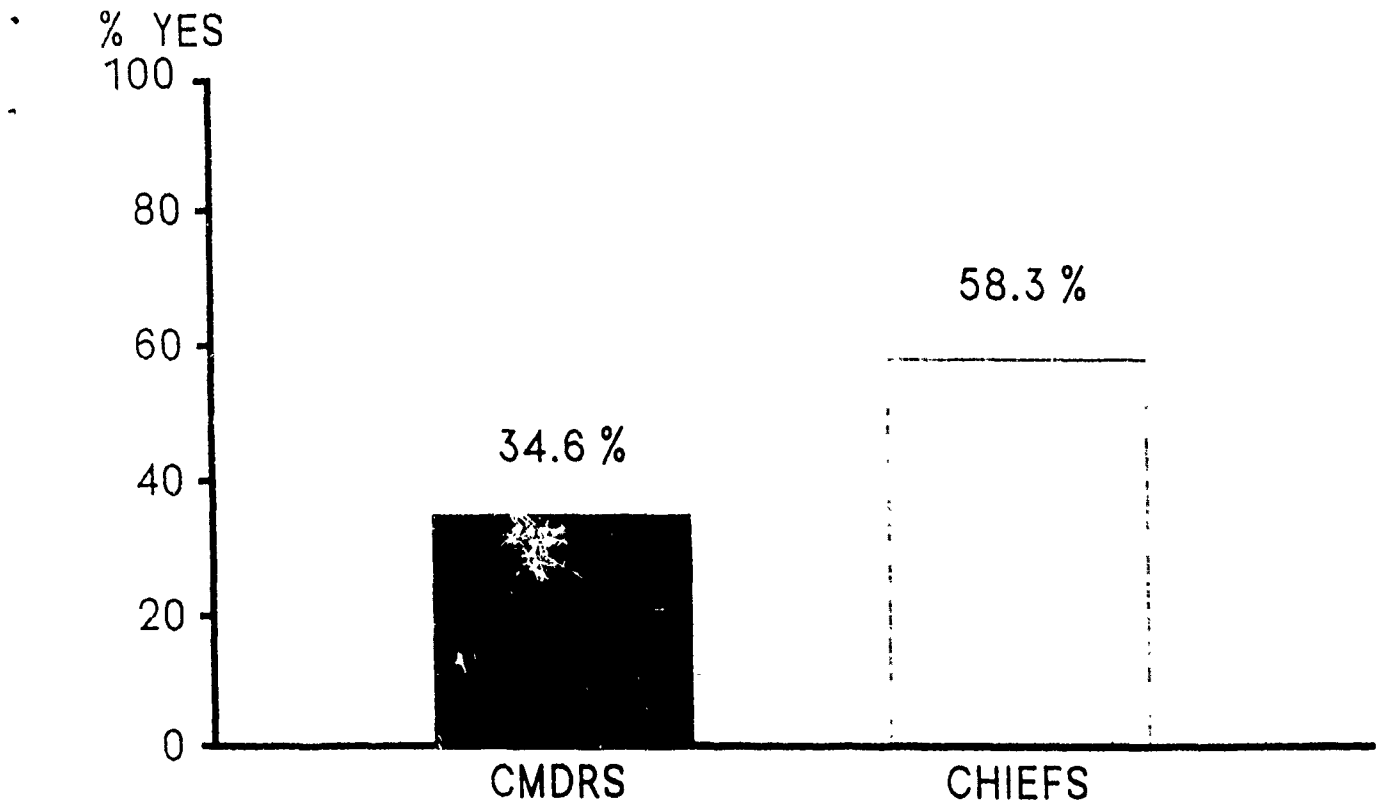


Figure 60

COMMANDERS (TOTAL)

**WOULD YOU FAVOR LENGTHENING X2 TRAINING
TO 1 - 2 YEARS ?**

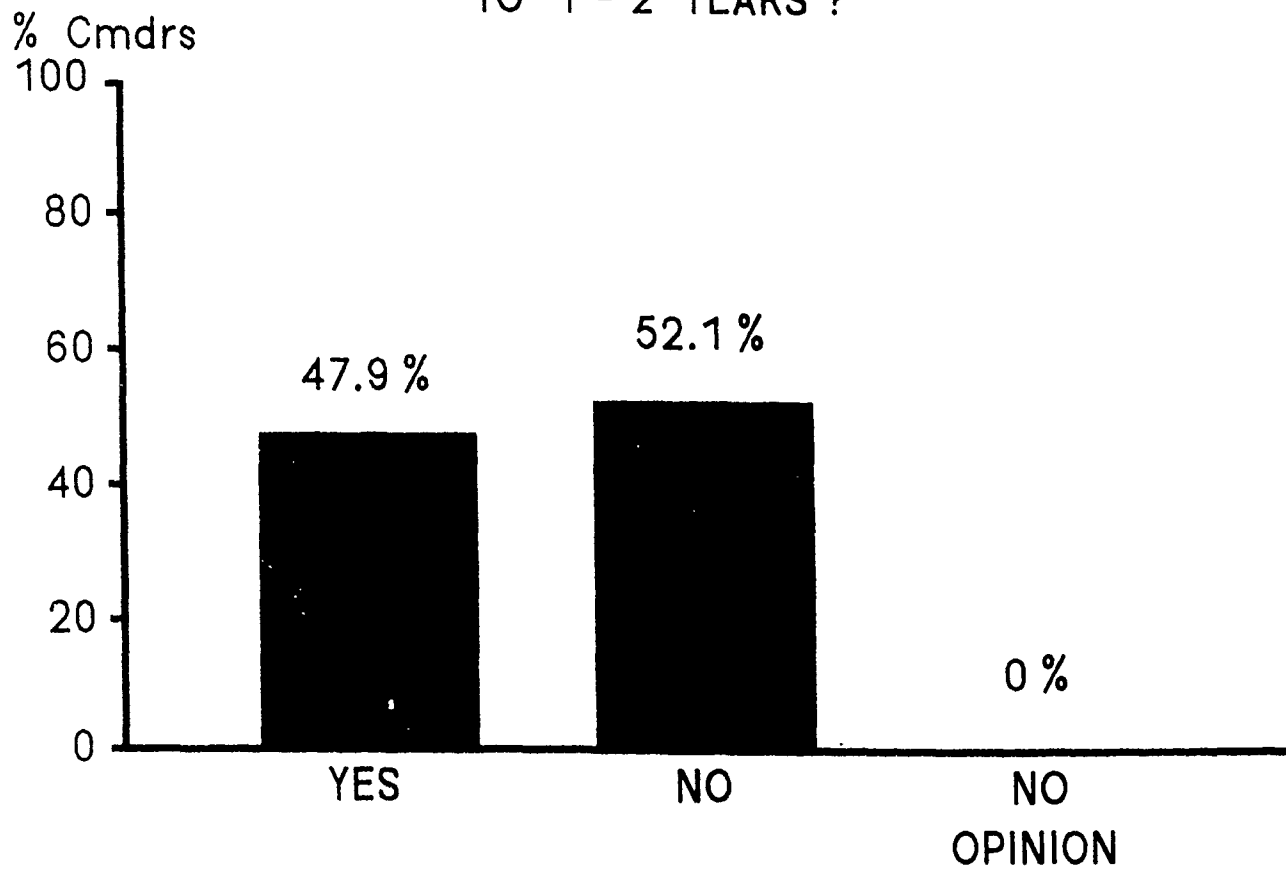


Figure 61

CHIEFS (TOTAL)

WOULD YOU FAVOR LENGTHENING X2 TRAINING
TO 1 - 2 YEARS ?

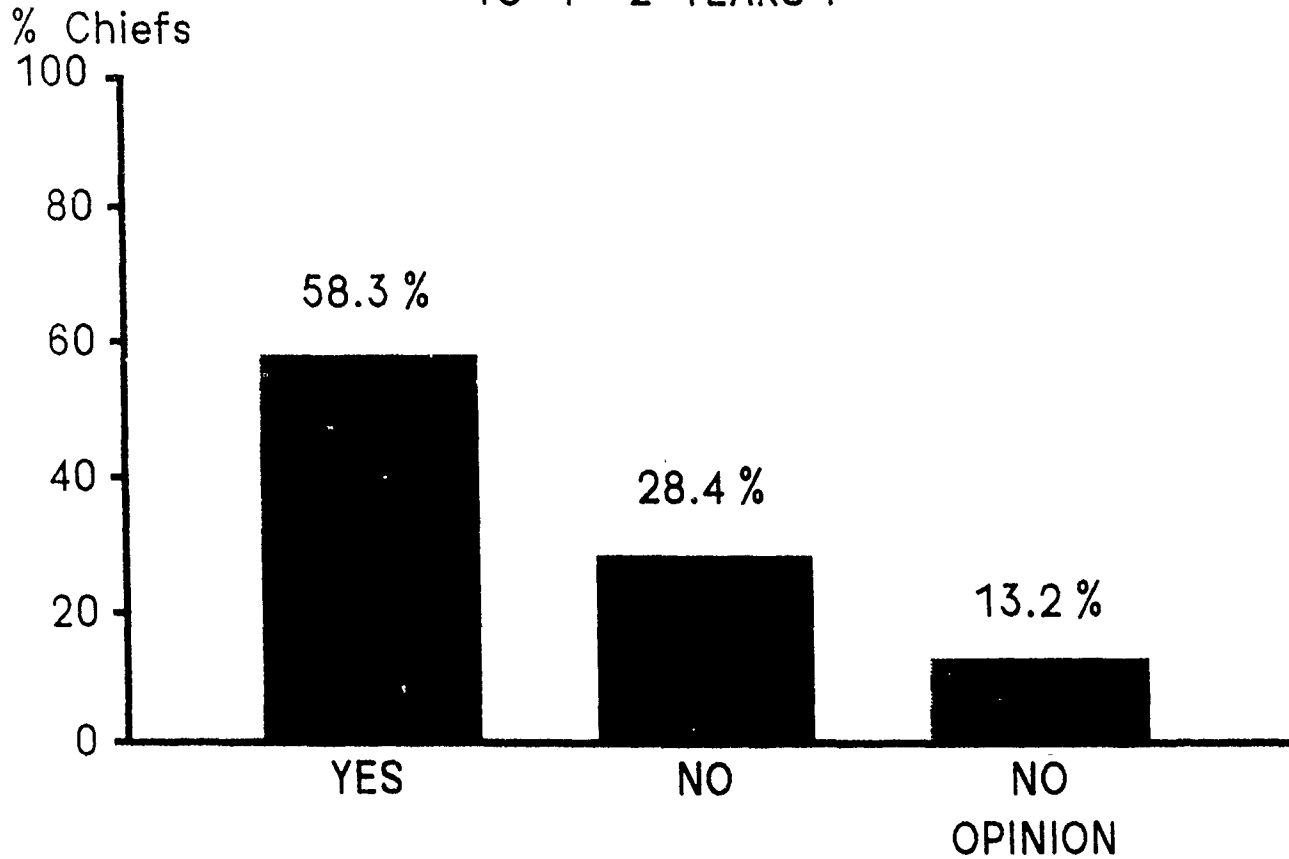


Figure 62

GRADUATES (TOTAL)

WOULD YOU FAVOR LENGTHENING X2 TRAINING
TO 1 - 2 YEARS ?

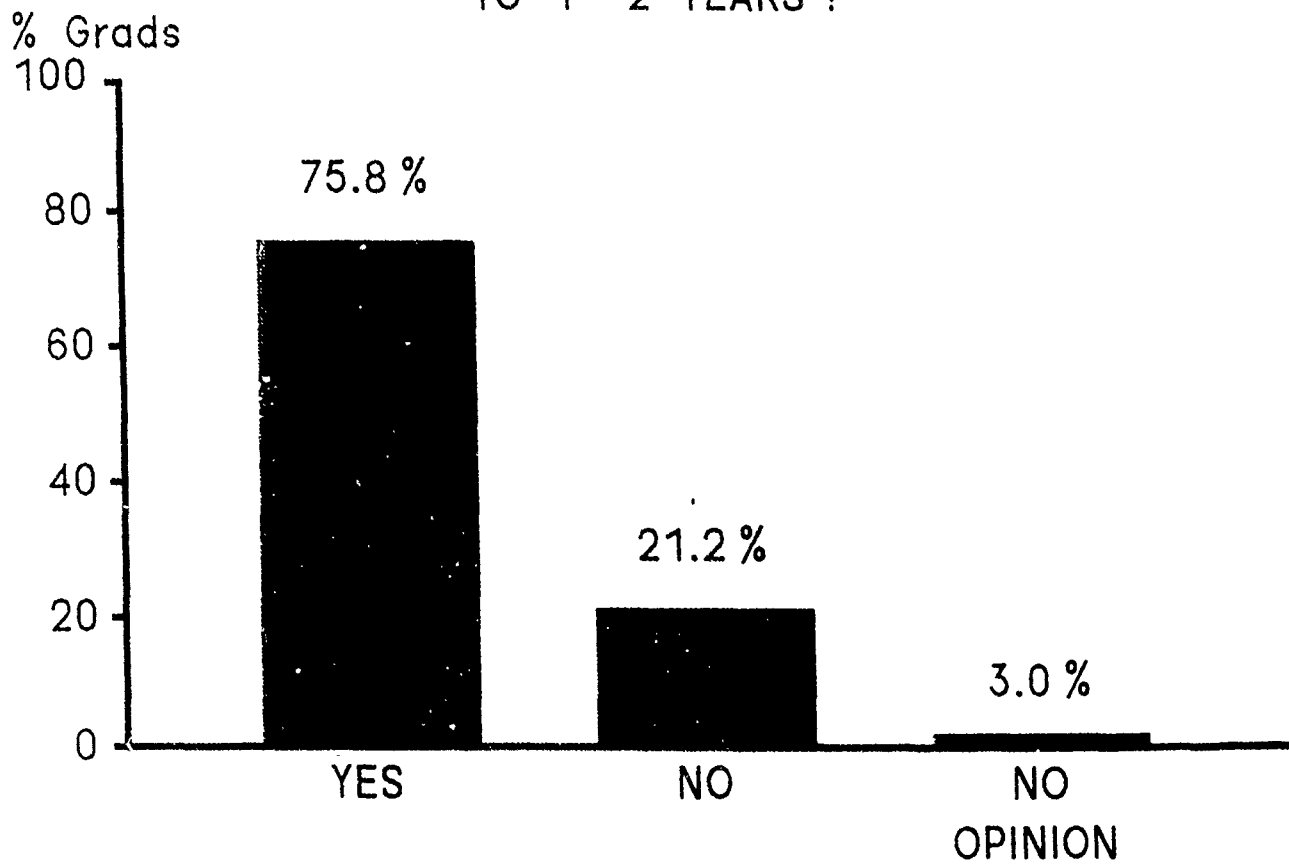


Figure 63

COMMANDERS (TOTAL)

WHAT RANK SHOULD X2s WITH
STATE LICENSES HAVE ?

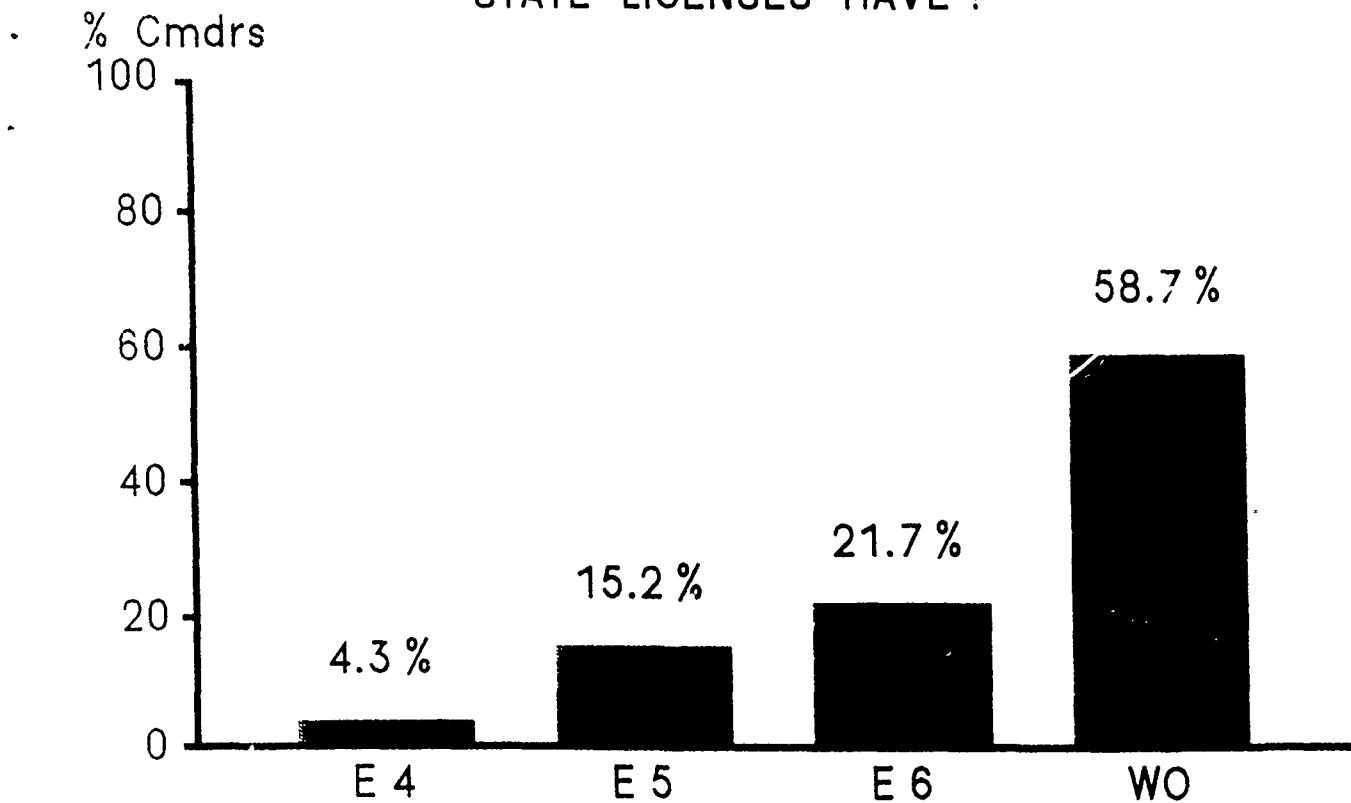


Figure 64

CHIEFS (TOTAL)

WHAT RANK SHOULD X2s WITH
STATE LICENSES HAVE ?

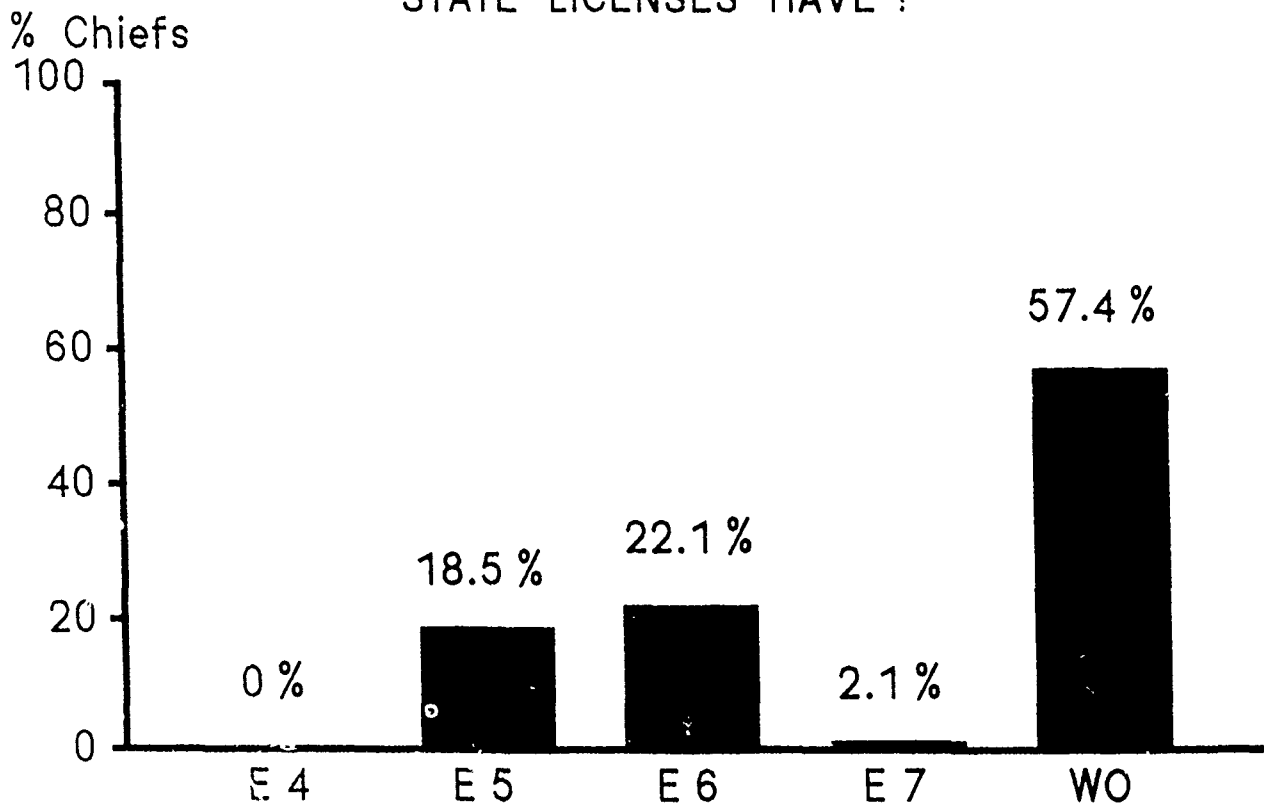


Figure 65

COMMANDERS (TOTAL)

WOULD YOU FAVOR WO RANK FOR X2s WHO
COMPLETE LONGER TRAINING AND
PASS A STATE BOARD?

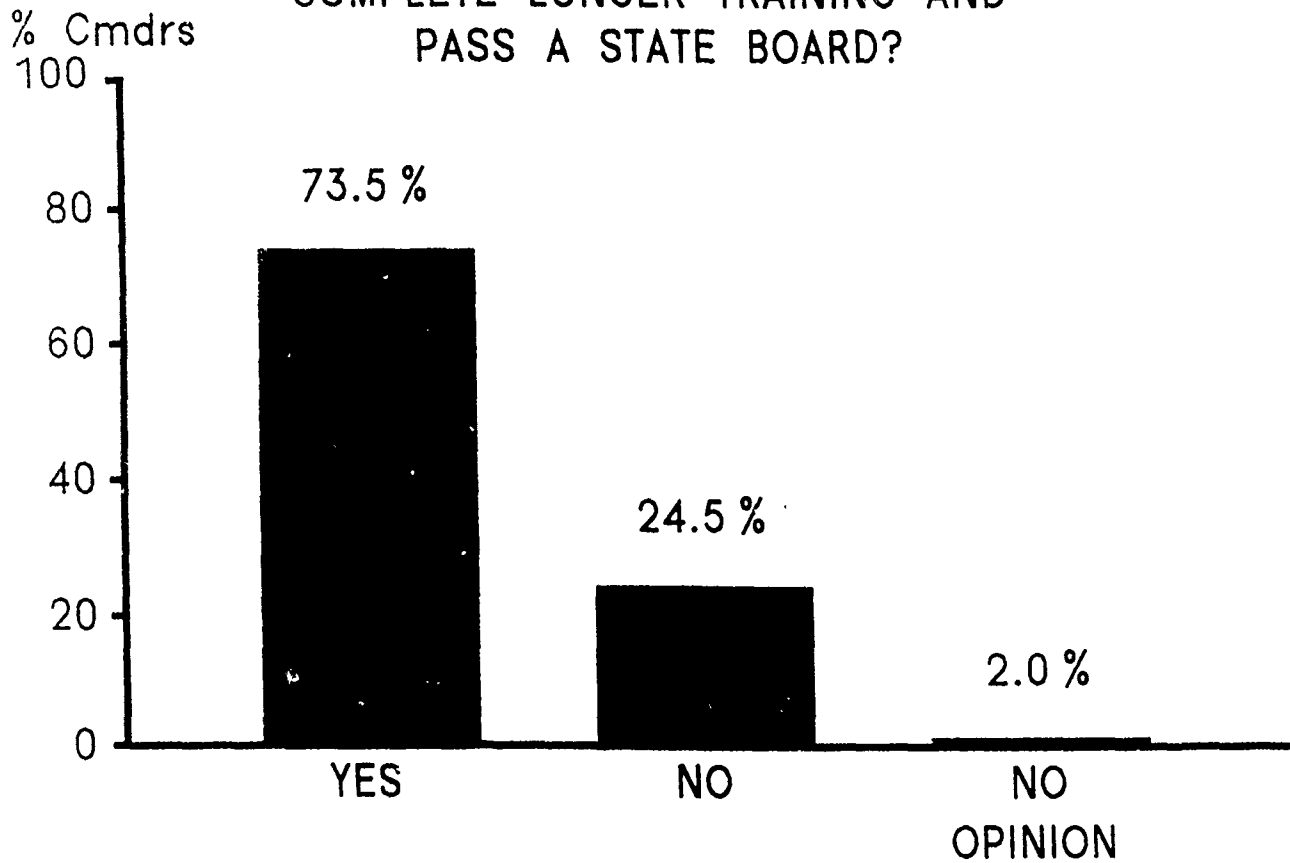


Figure 66

CHIEFS (TOTAL)

WOULD YOU FAVOR WO RANK FOR X2s WHO
COMPLETE LONGER TRAINING AND
PASS A STATE BORAD ?

% Chiefs
100

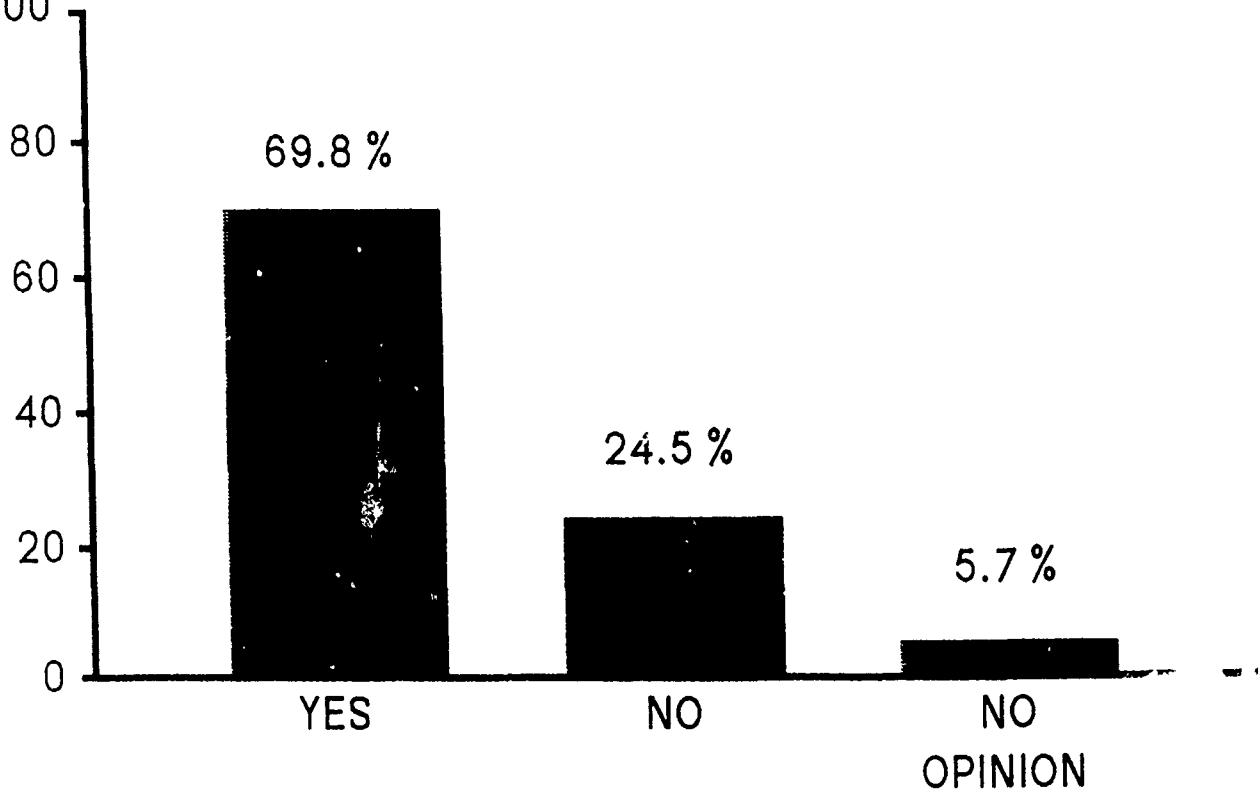


Figure 67

COMMANDERS (TOTAL)

DC SHOULD CONVERT DENTAL OFFICER SLOTS
INTO WO HYGIENE SLOTS

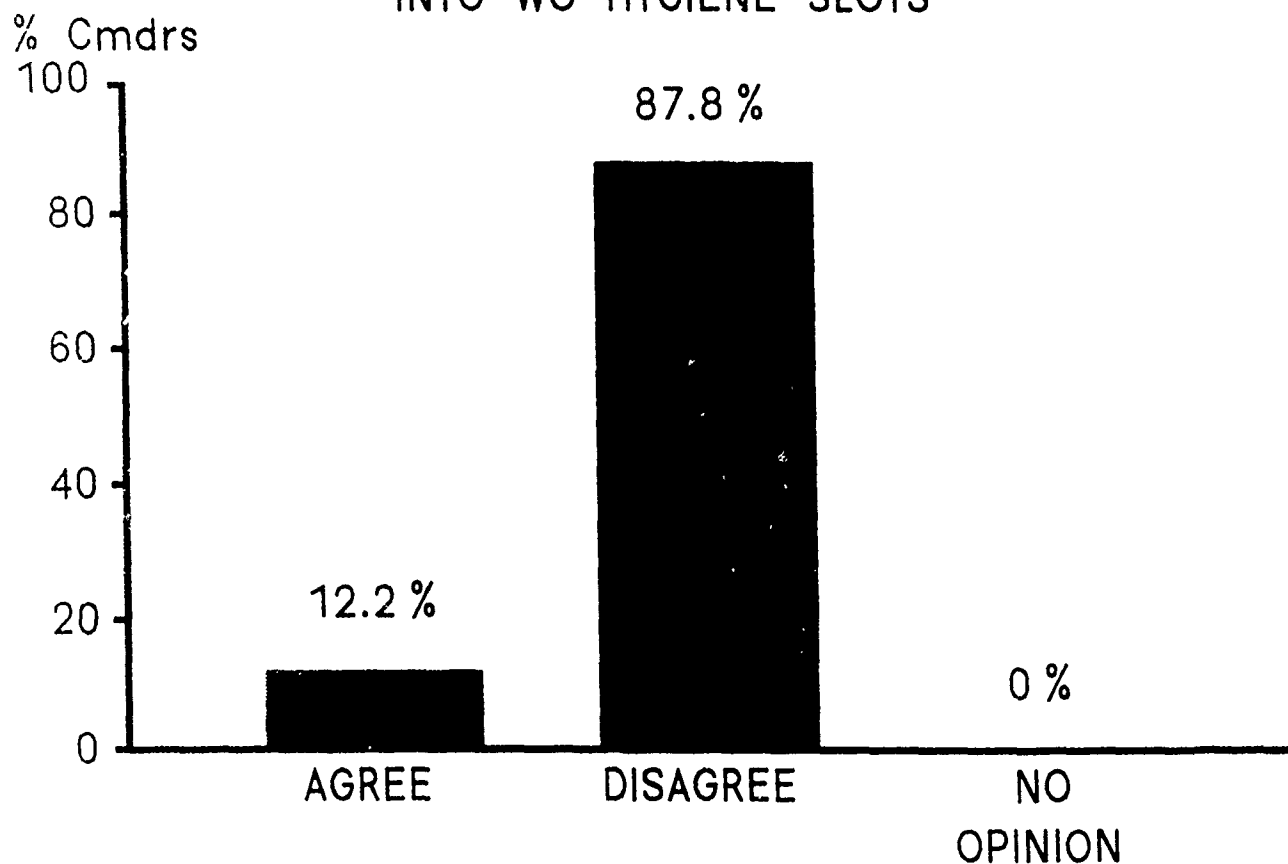


Figure 68

POTENTIAL X2s (TOTAL)

DO YOU PLAN TO APPLY FOR X2 TRAINING ?

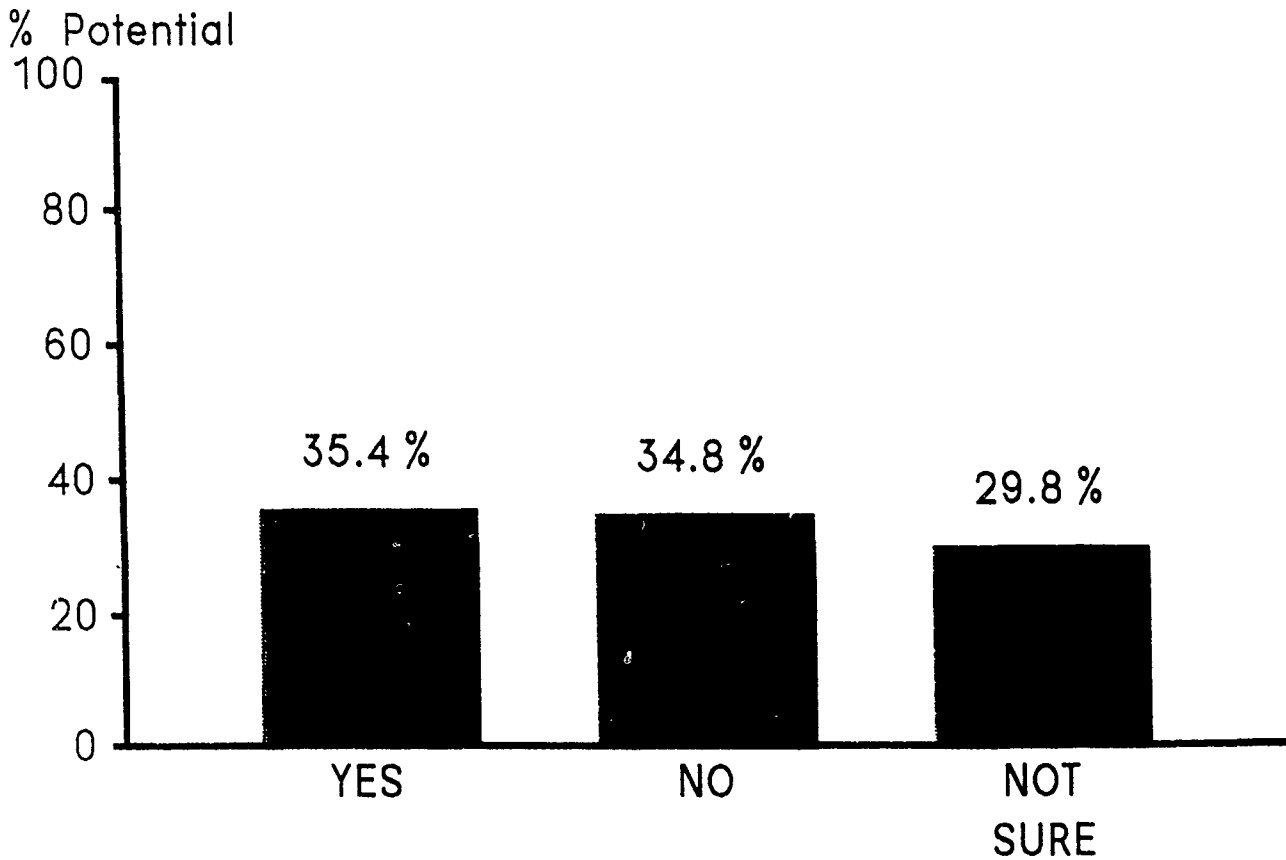


Figure 69

POTENTIAL X2s (TOTAL)

**WOULD YOU BE CONTENT STAYING A DH IF YOU
YOU COULD BE PROMOTED TO
ANY ENLISTED RANK ?**

% Potential

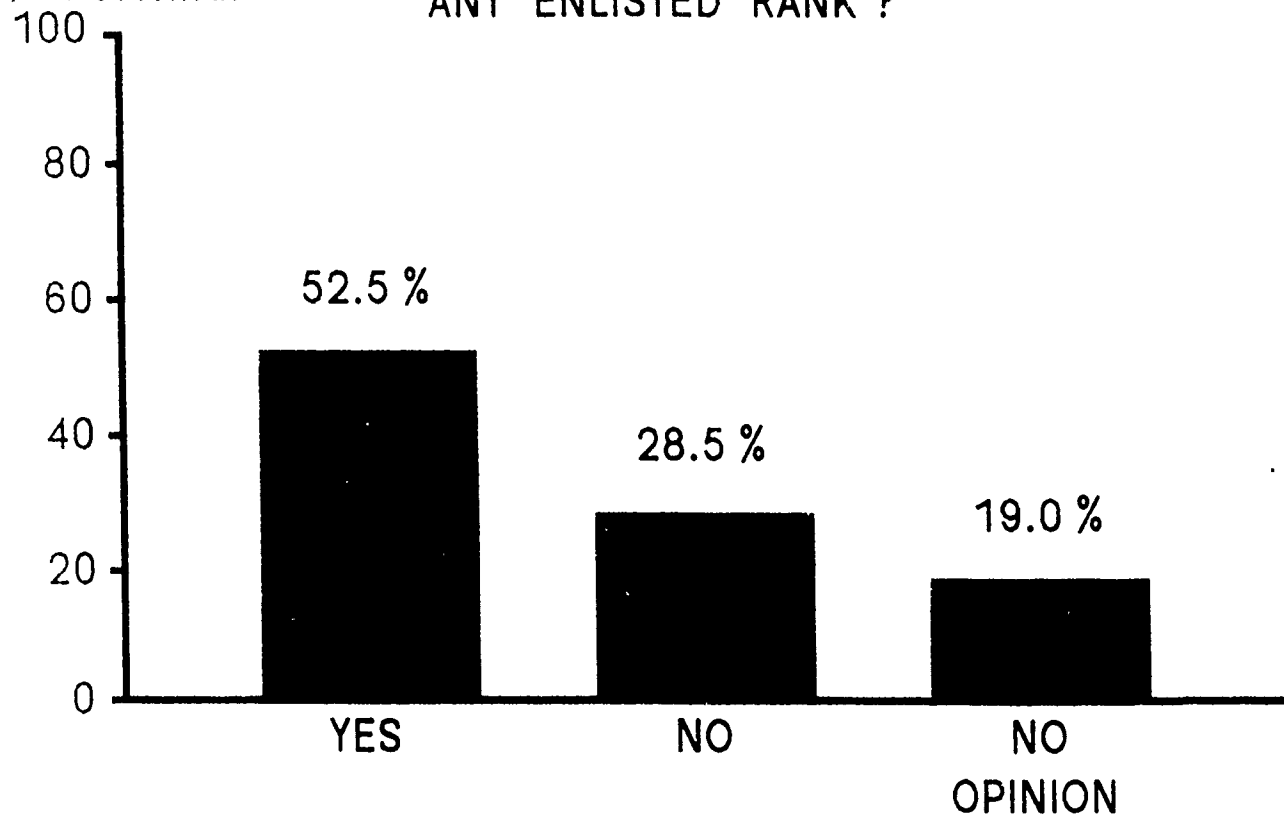


Figure 70

GRADUATES (TOTAL)

**WOULD YOU BE CONTENT STAYING A DH
IF YOU COULD BE PROMOTED
TO ANY ENLISTED RANK ?**

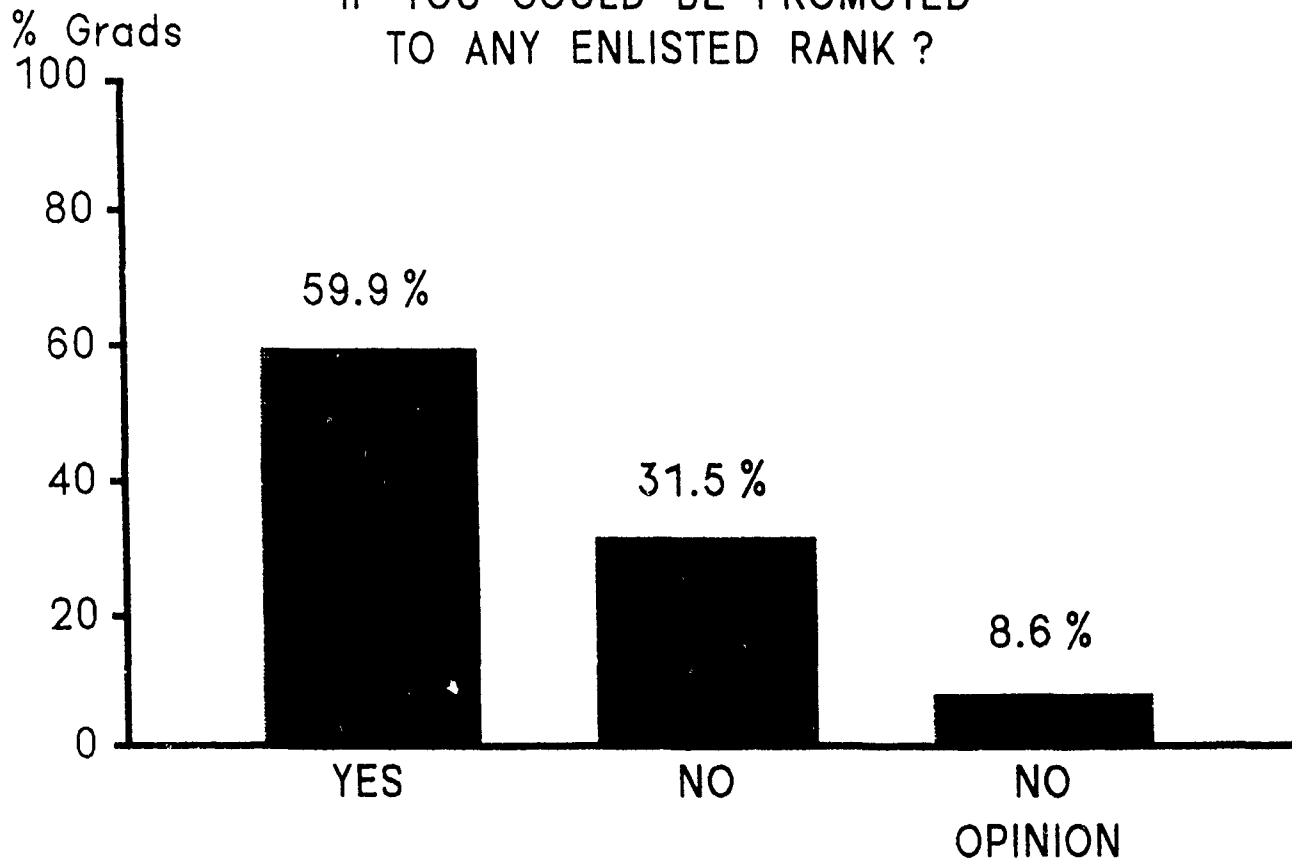


Figure 71

POTENTIAL X2s (TOTAL)

**IF LICENSED DHs WERE LIMITED TO E6 RANK,
WHAT WOULD YOU DO AFTER
BEING PROMOTED TO E6 ?**

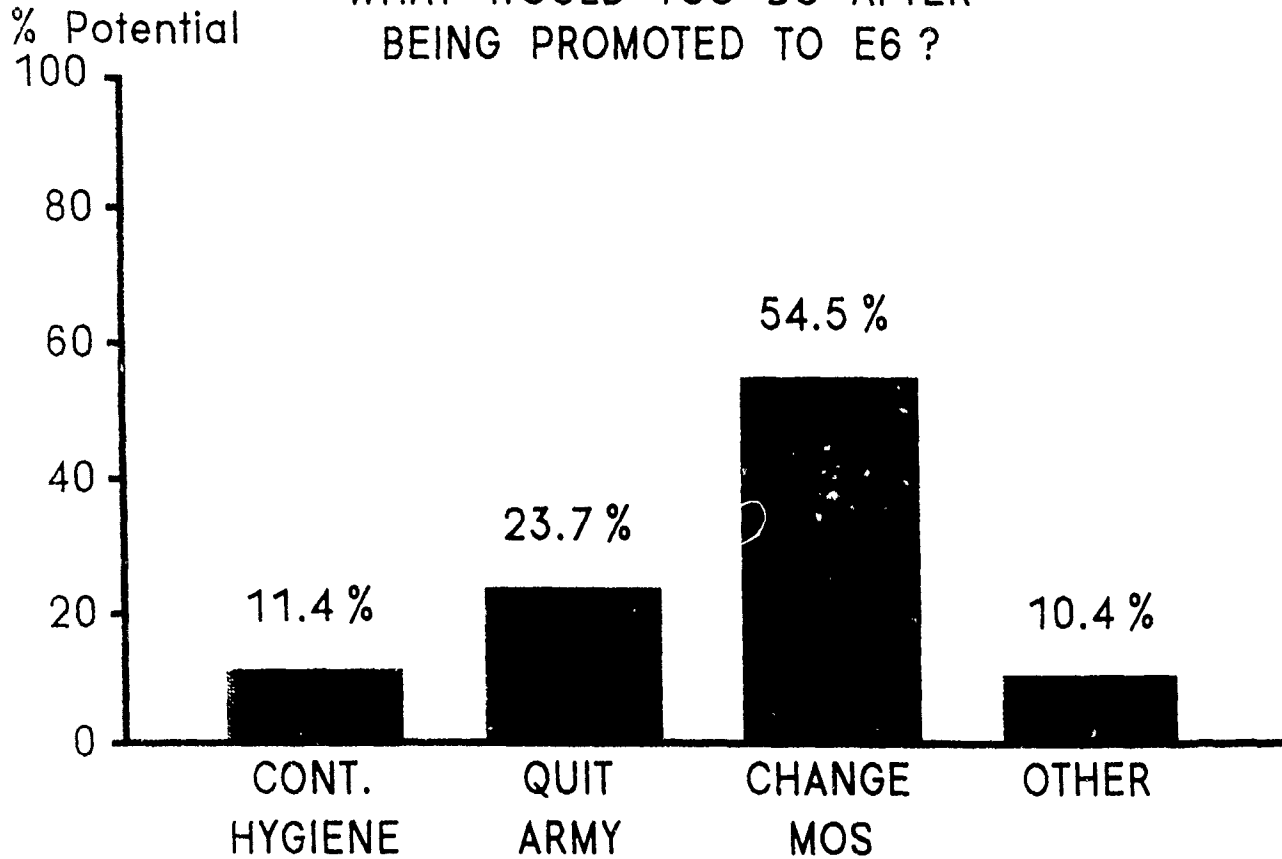


Figure 72

GRADUATES (TOTAL)

**IF LICENSED DH WERE LIMITED TO E6 RANK
WHAT WOULD YOU DO AFTER BEING
PROMOTED TO E6 ?**

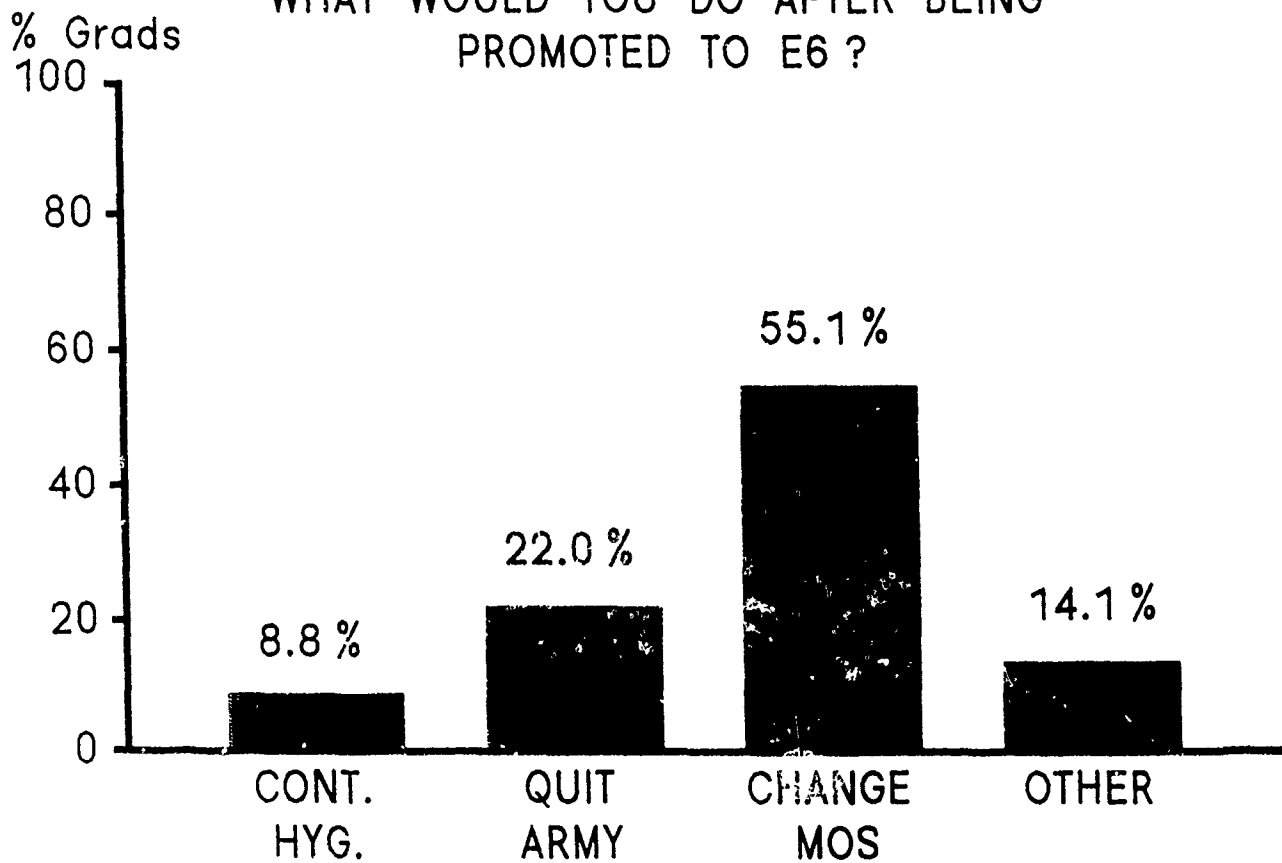


Figure 73

COMMANDERS (TOTAL)

HOW WOULD 1 - 2 YEARS' TRAINING
AFFECT X2 APPLICATIONS ?

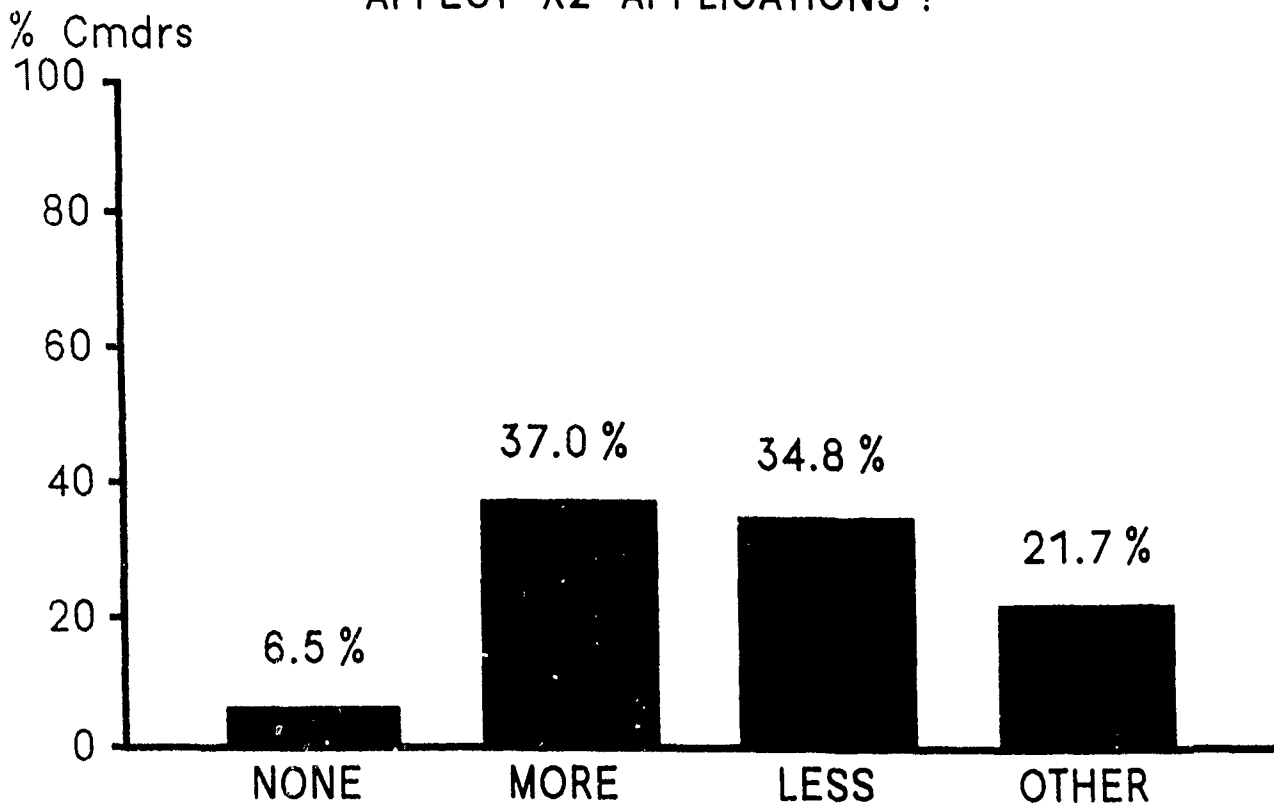


Figure 74

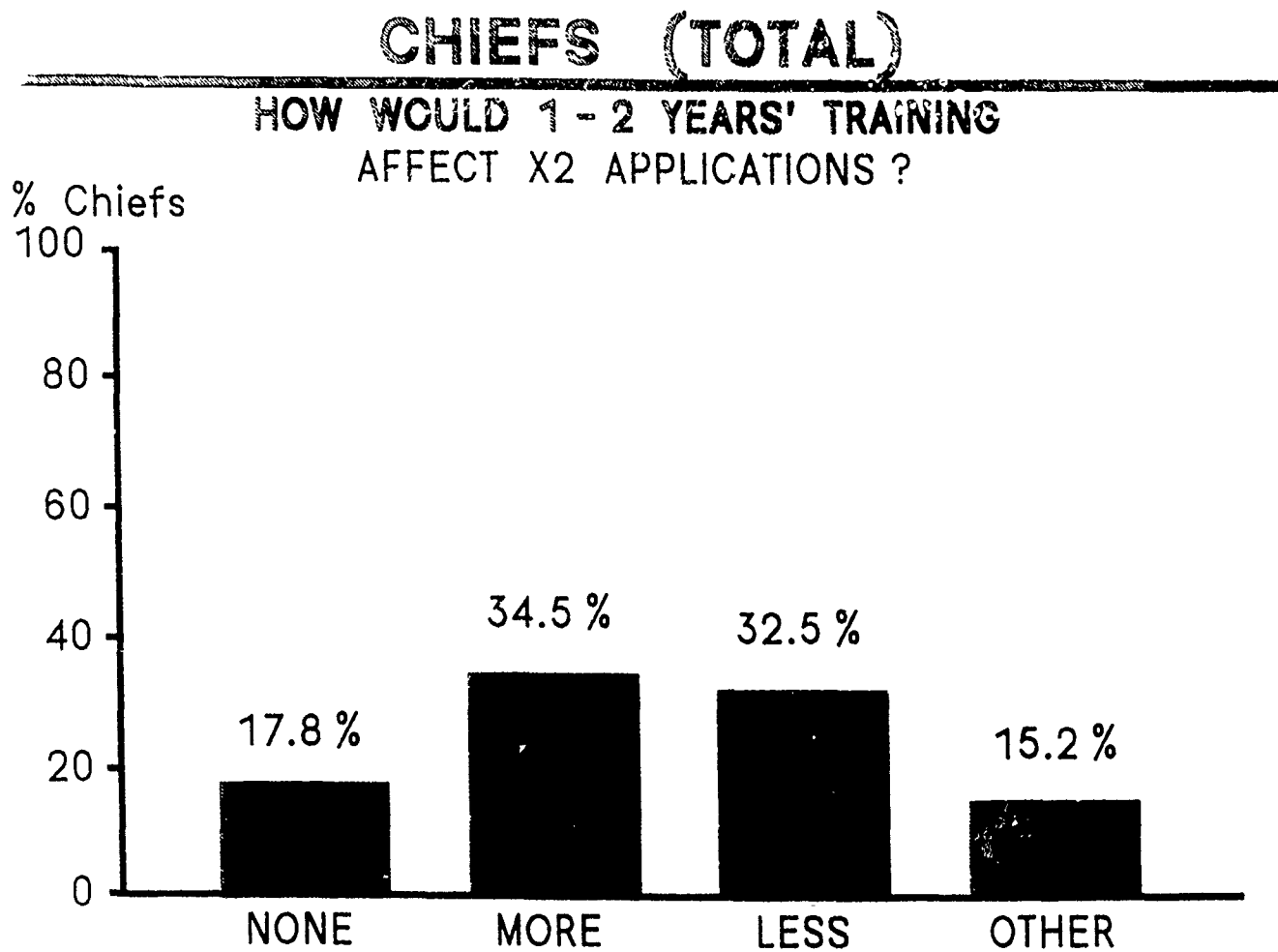


Figure 75

GRADUATES (TOTAL)

HOW WOULD 1 - 2 YEARS' TRAINING
AFFECT X2 APPLICATIONS ?

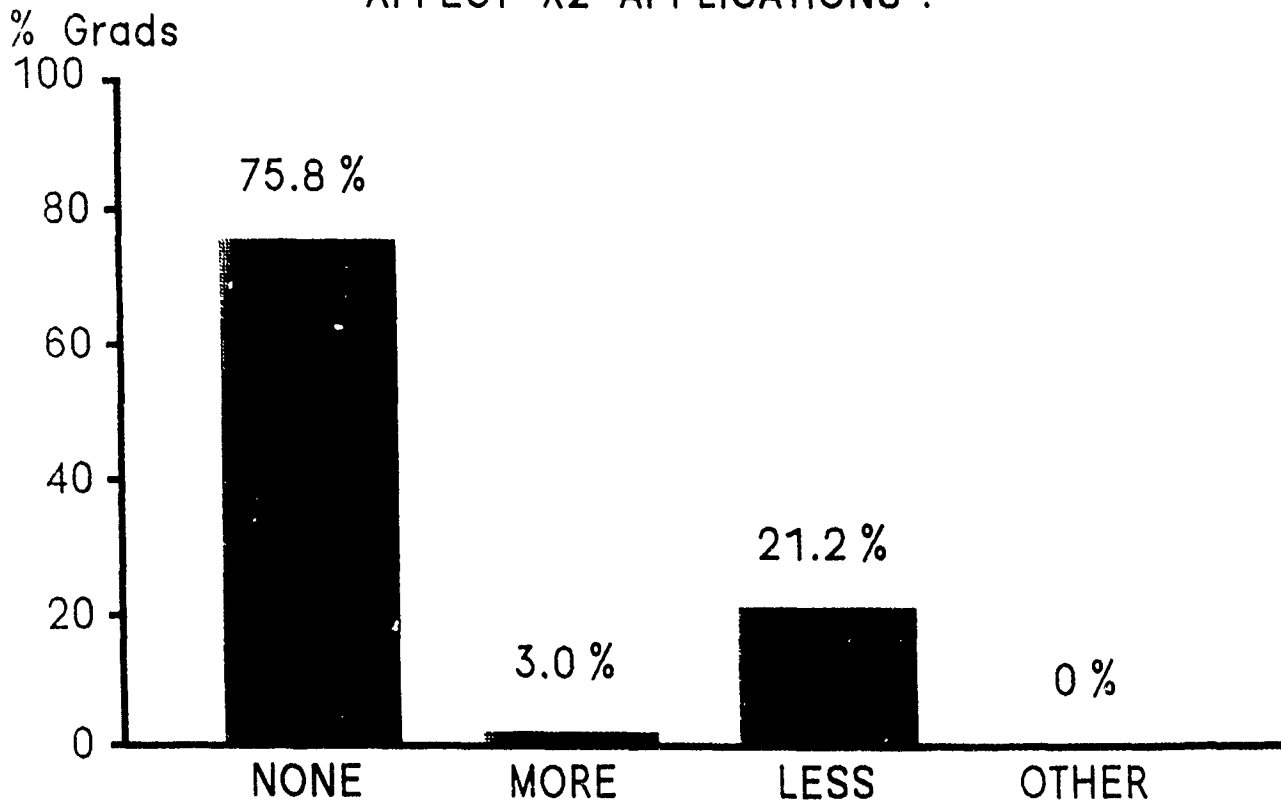


Figure 76

POTENTIAL X2s (TOTAL)

HOW WOULD 1-2 YEARS OF TRAINING AFFECT
X2 APPLICATIONS ?

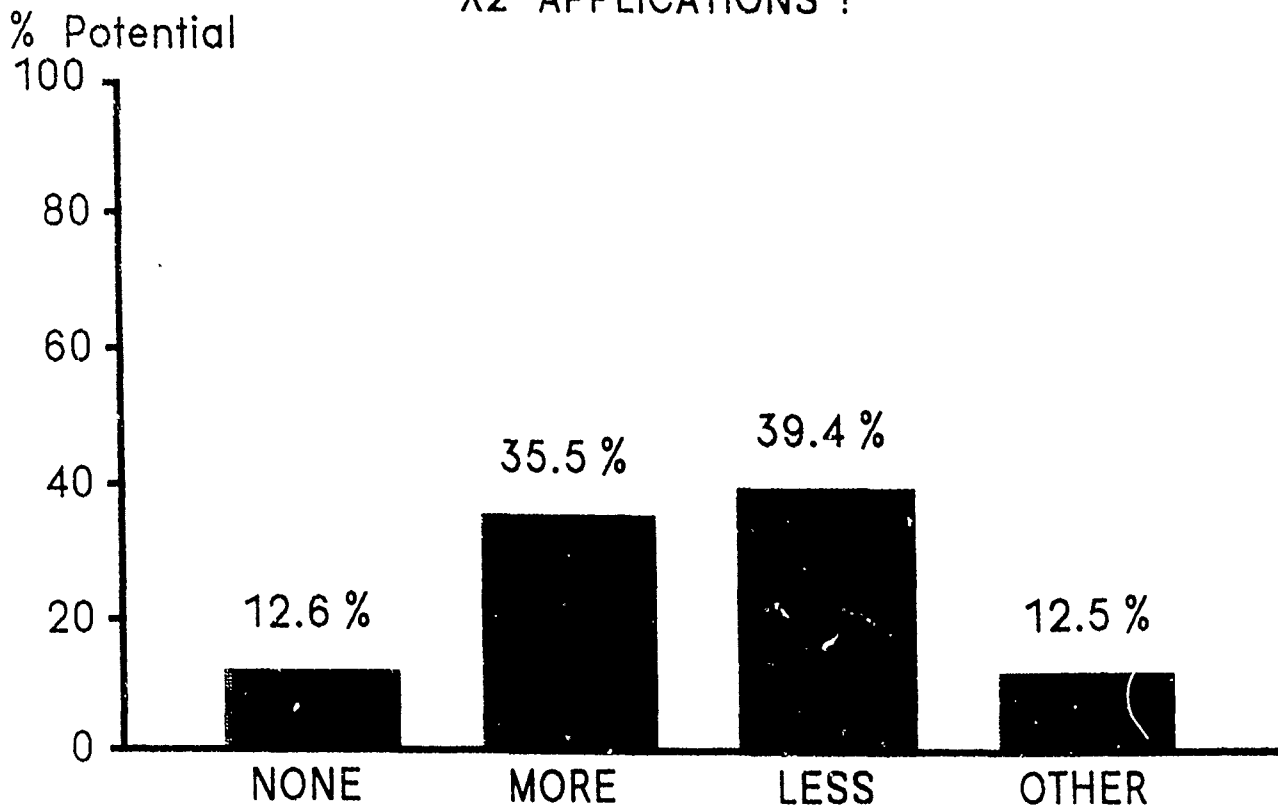


Figure 77

POTENTIAL X2s (TOTAL)

WOULD YOU APPLY FOR A 2-YEAR X2 COURSE ?

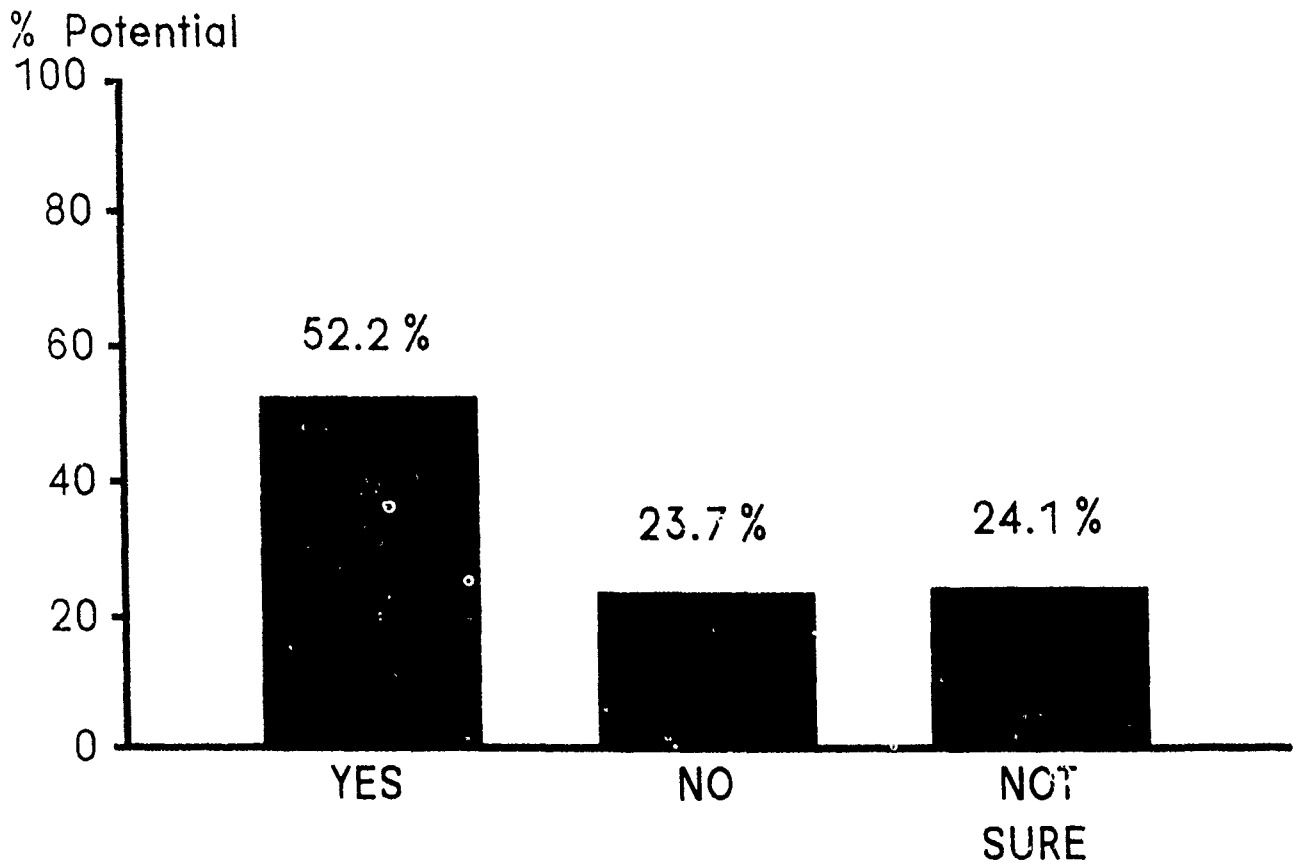


Figure 78

COMMANDERS (TOTAL)

HOW WOULD BOARD ELIGIBILITY
AFFECT X2 APPLICATIONS ?

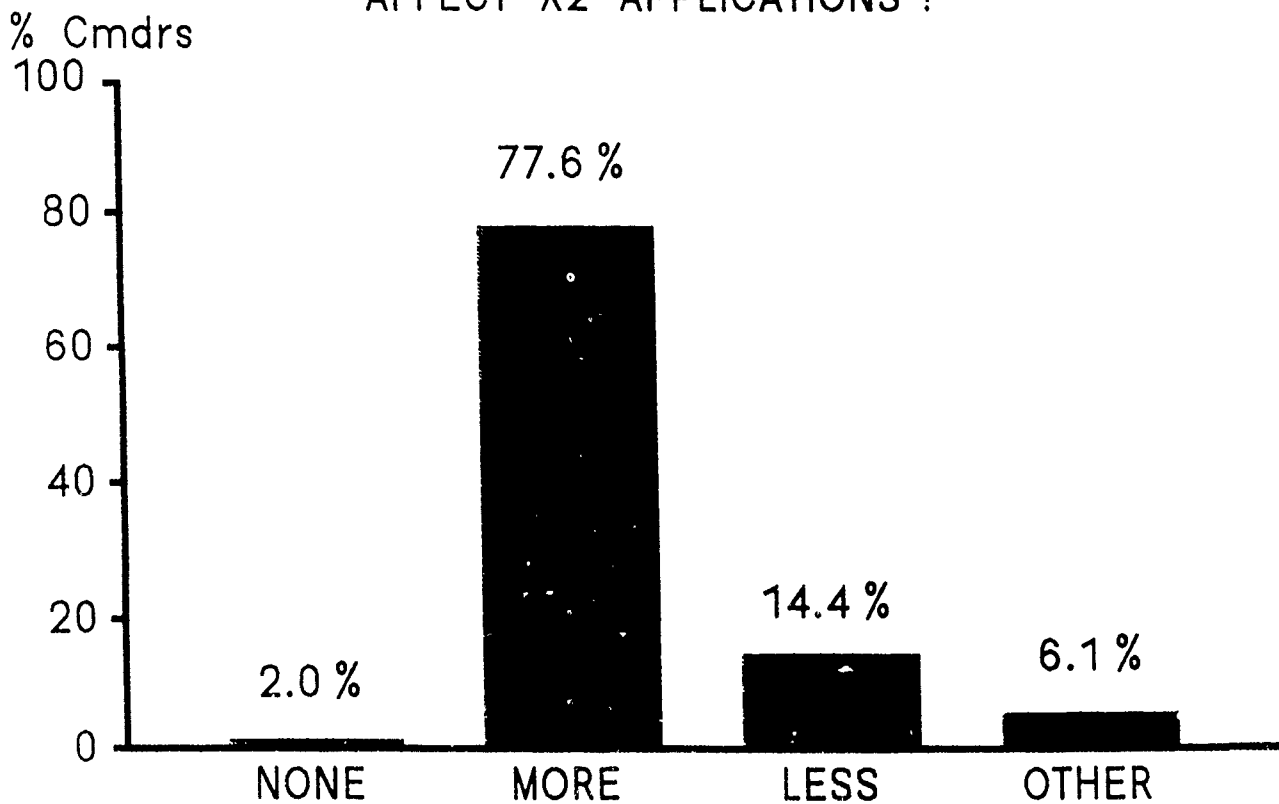


Figure 79

CHIEFS (TOTAL)

HOW WOULD BOARD ELIGIBILITY
AFFECT X2 APPLICATIONS ?

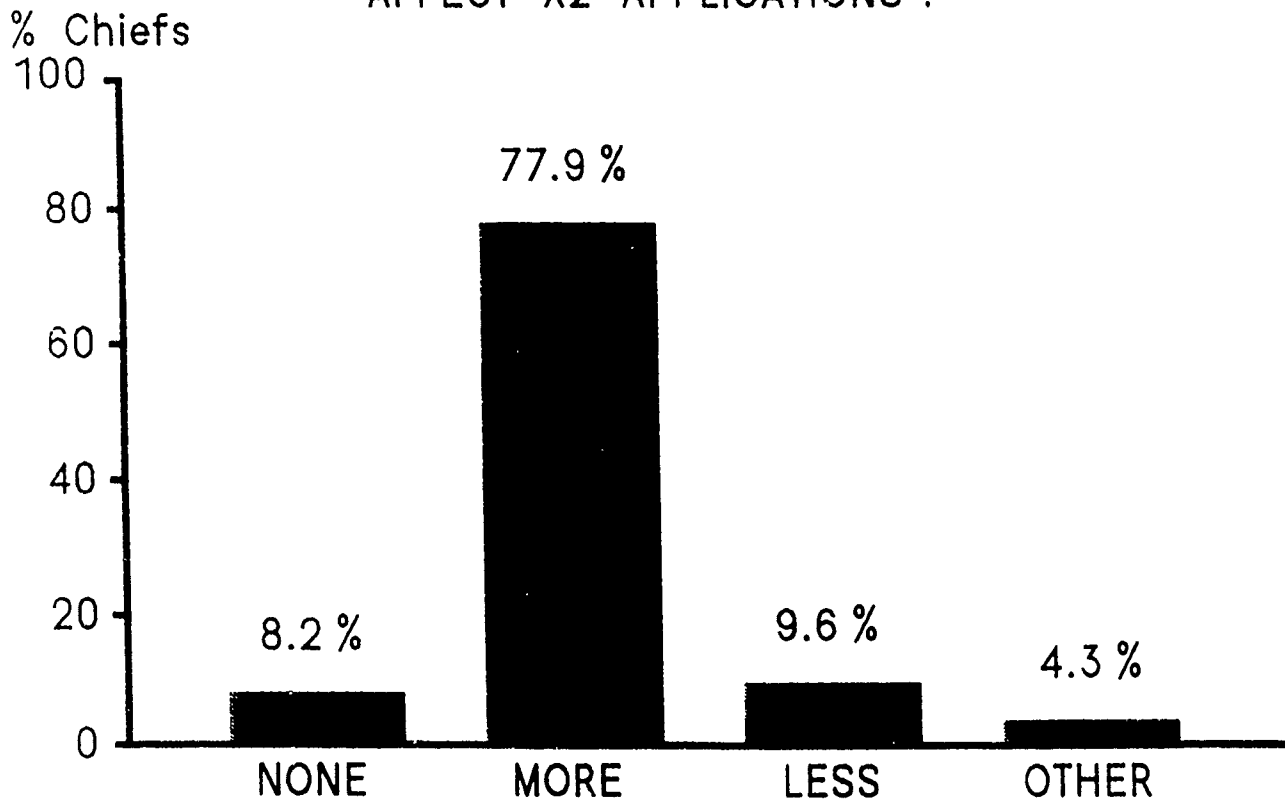


Figure 80

GRADUATES (TOTAL)

**HOW WOULD BOARD ELIGIBILITY
AFFECT X2 APPLICATIONS ?**

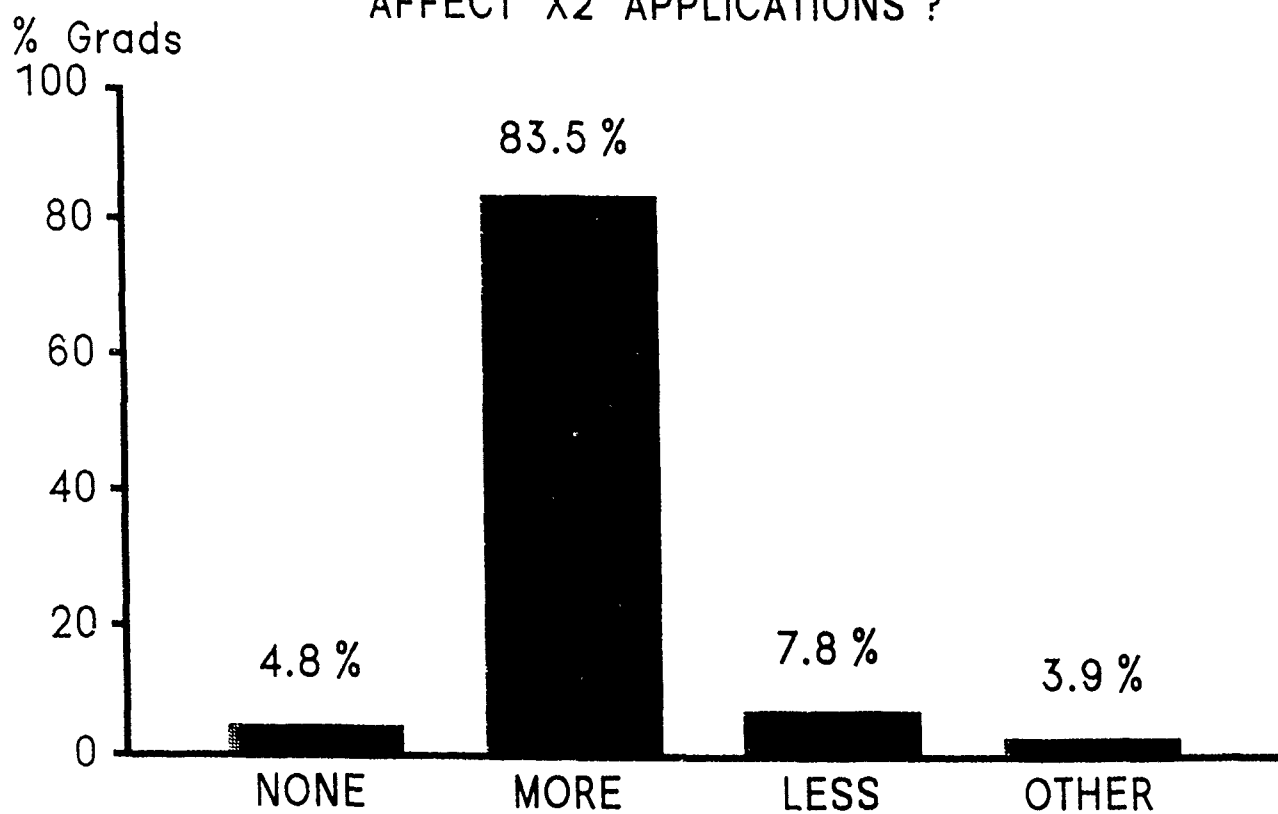


Figure 81

POTENTIAL X2s (TOTAL)

**HOW WOULD BOARD ELIGIBILITY AFFECT
X2 APPLICATIONS ?**

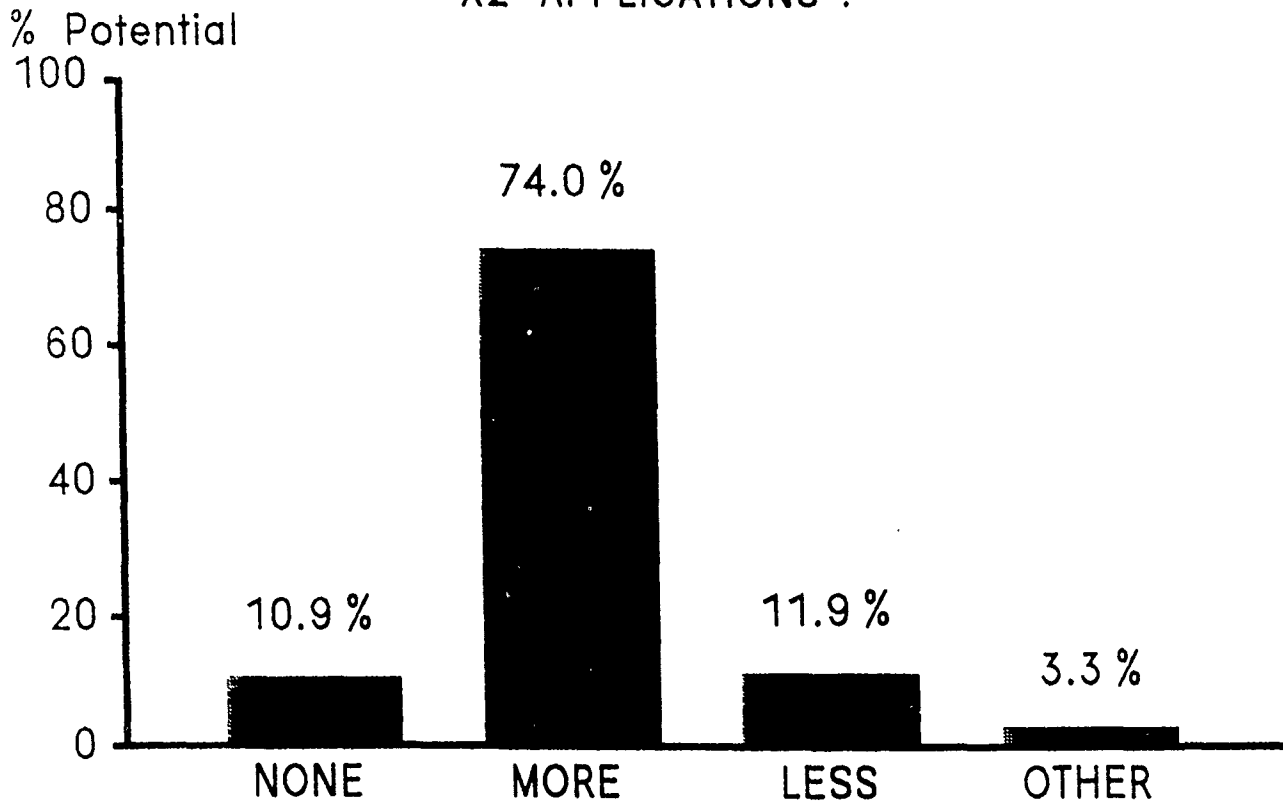


Figure 82

COMMANDERS (TOTAL)

HOW WOULD WO RANK FOR BOARDED X2s
AFFECT X2 APPLICATIONS ?

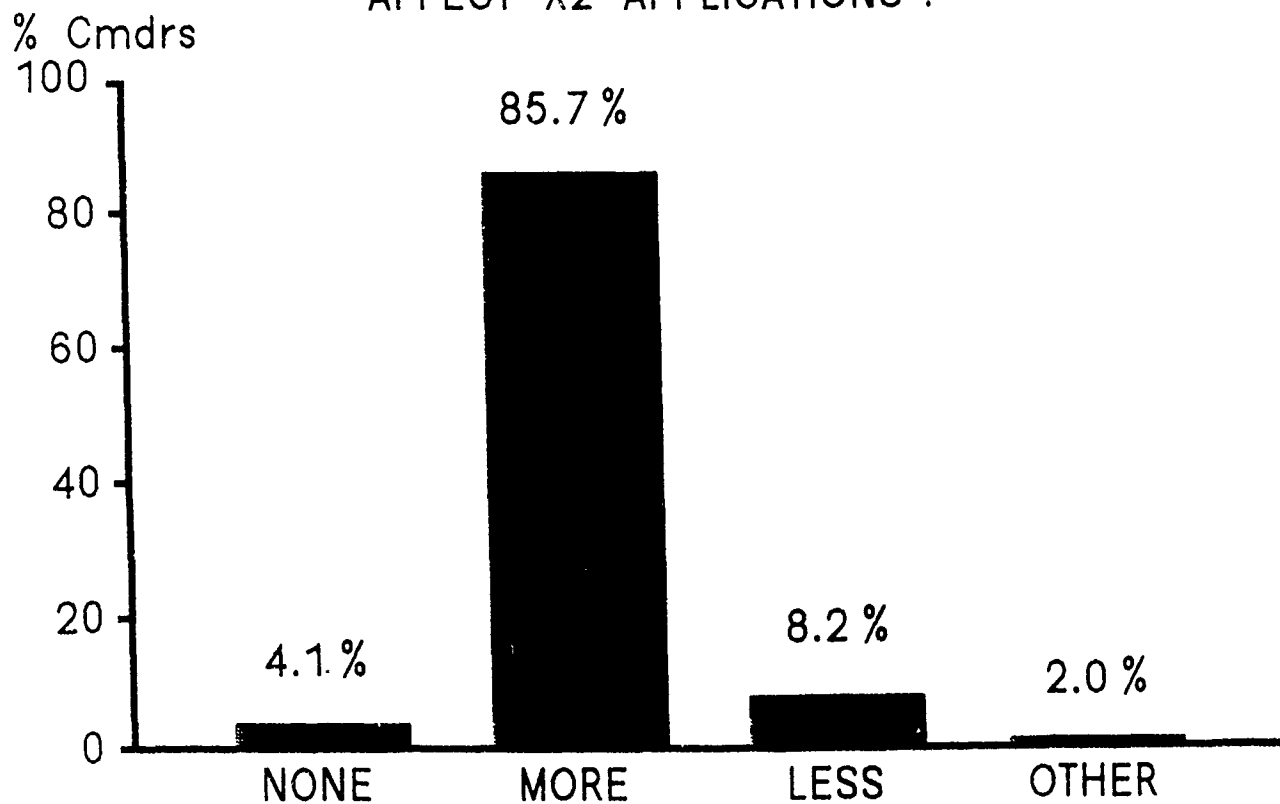


Figure 83

CHIEFS (TOTAL)

HOW WOULD WO RANK FOR BOARDED X2s
AFFECT X2 APPLICATIONS ?

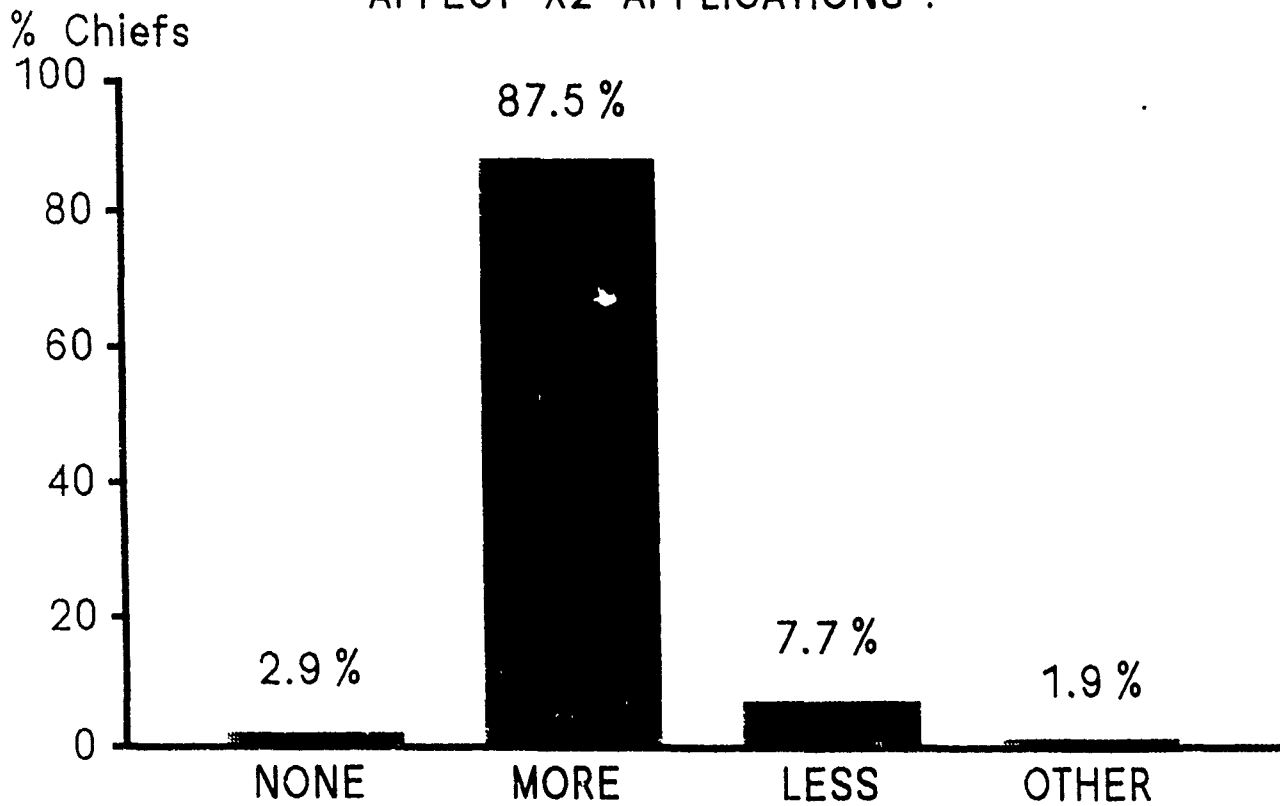


Figure 84

COMMANDERS

**COMMANDERS ARE RELUCTANT TO SEND THEIR BEST
91Es TO X2 TRAINING (NO RETURN)**

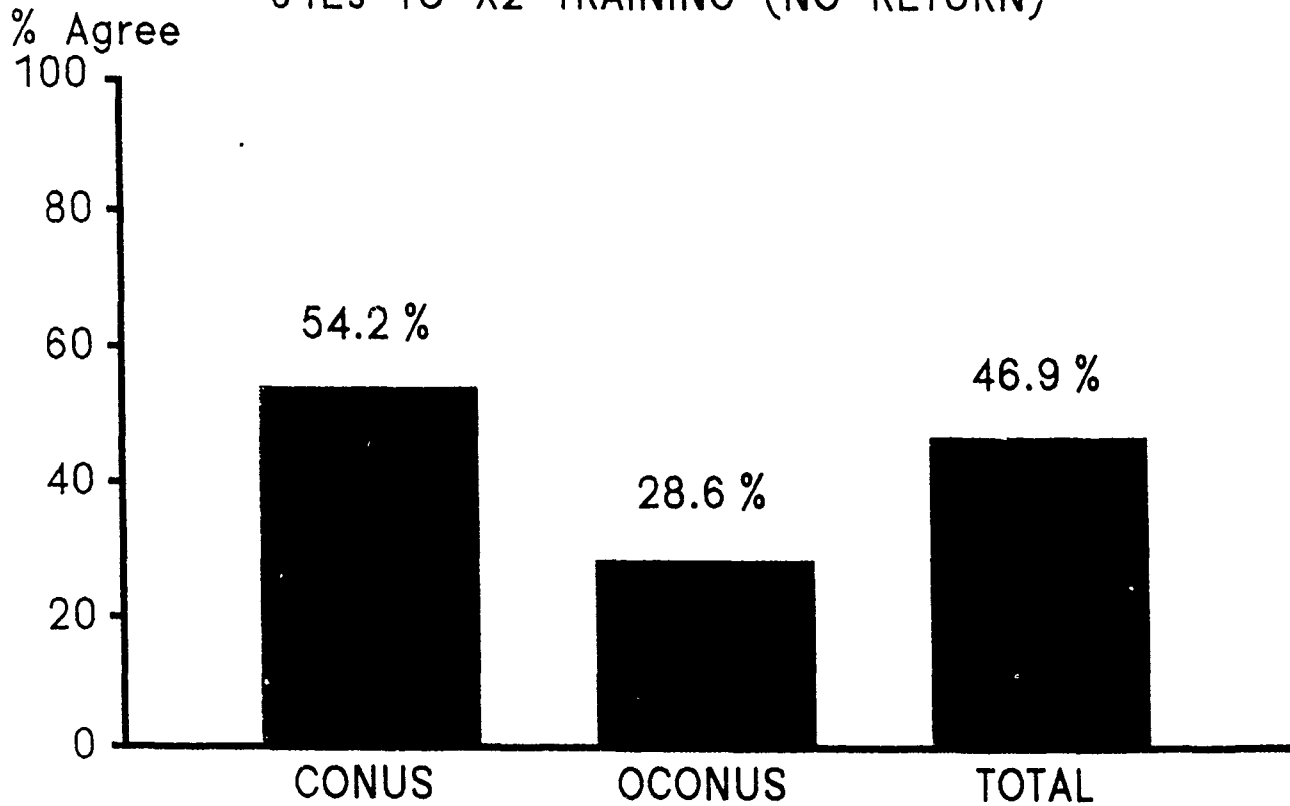


Figure 85

CHIEFS

**COMMANDERS ARE RELUCTANT TO SEND THEIR BEST
91Es TO X2 TRAINING (NO RETURN)**

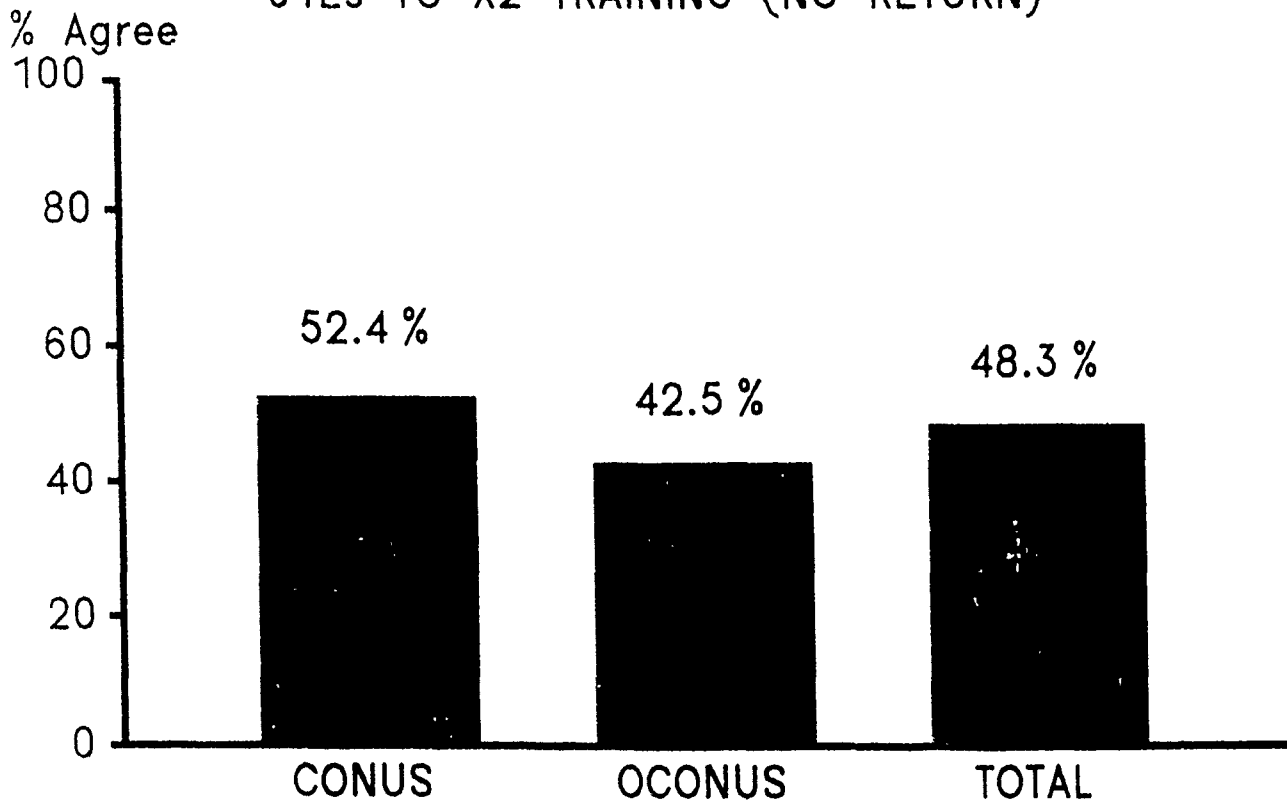


Figure 86

COMMANDERS

**COMMANDERS ARE RELUCTANT TO SEND THEIR BEST
91Es TO X2 TRAINING (ON LEVY)**

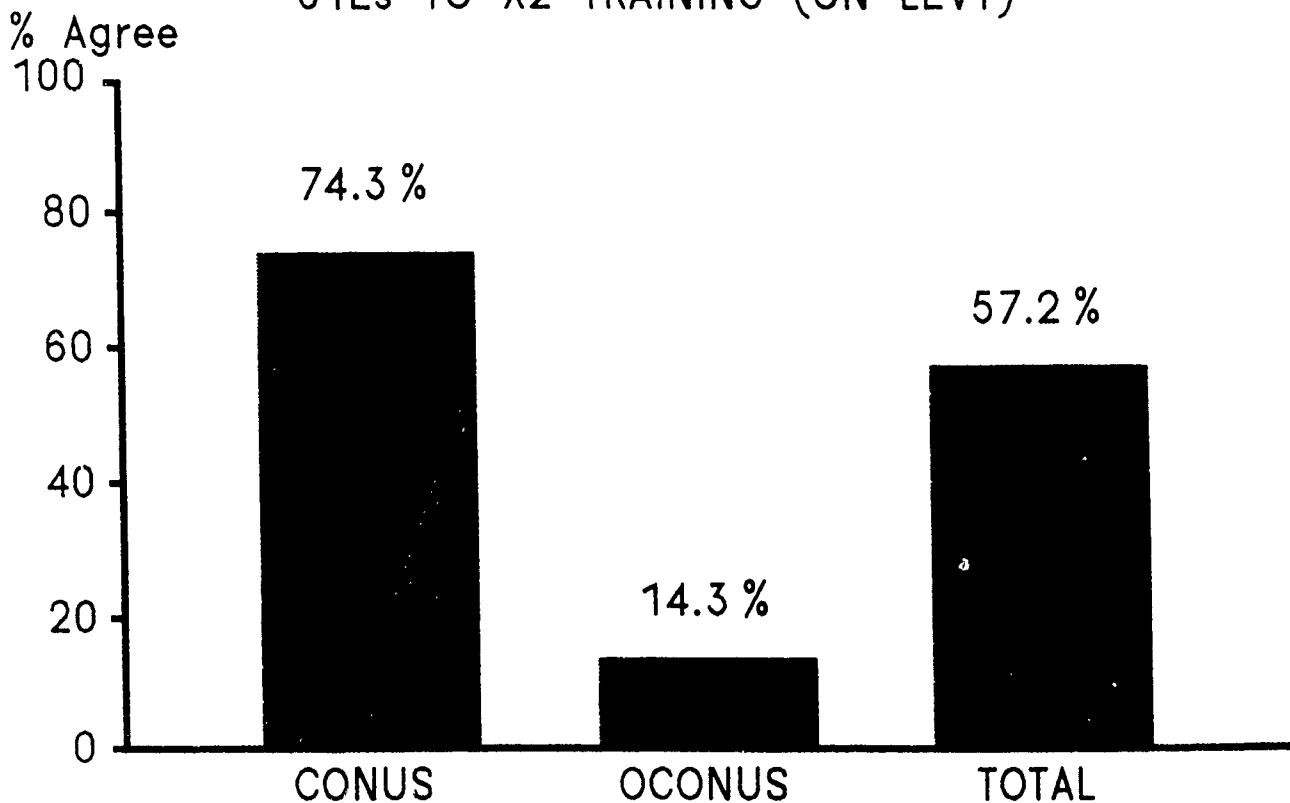


Figure 87

CHIEFS

**COMMANDERS ARE RELUCTANT TO SEND THEIR BEST
91Es TO X2 TRAINING (ON LEVY)**

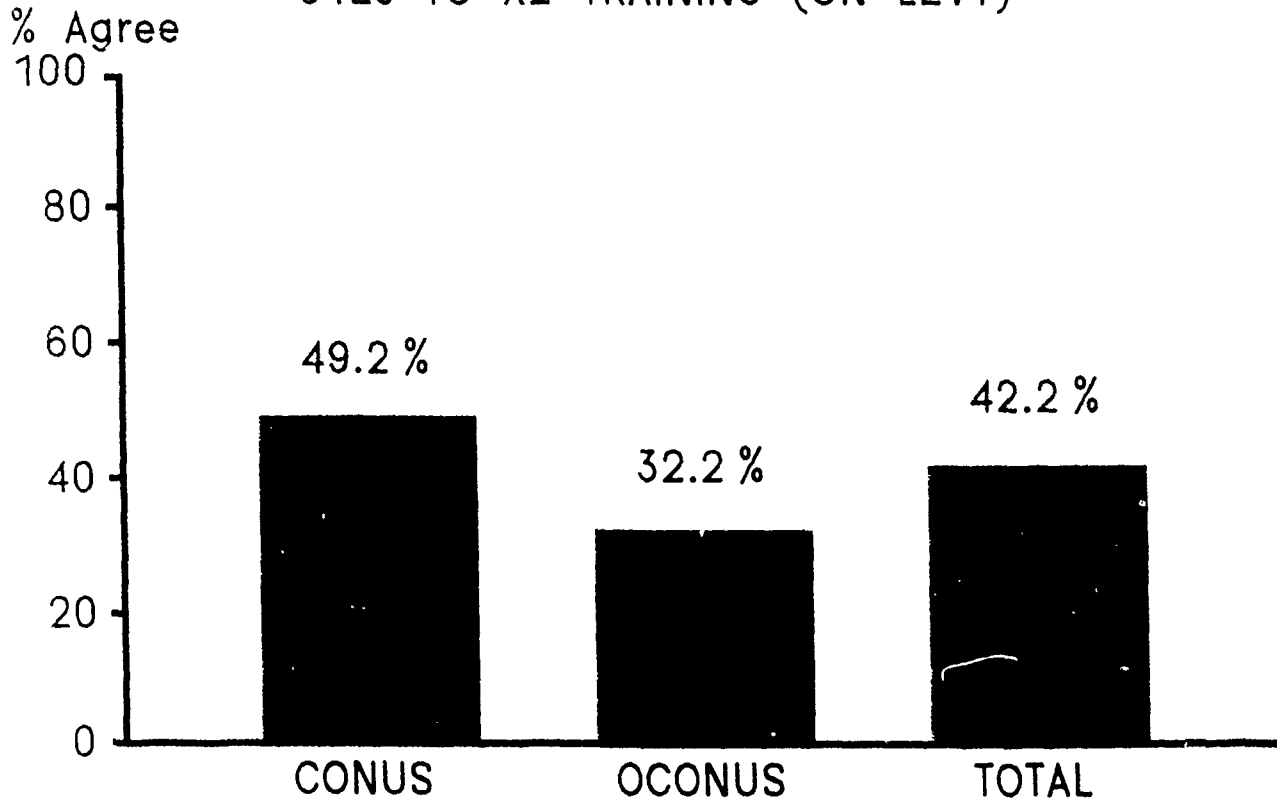


Figure 88

COMMANDERS (TOTAL)

**ARE X2s IN YOUR DENTAC PLACING AND
CARVING RESTORATIONS ?**

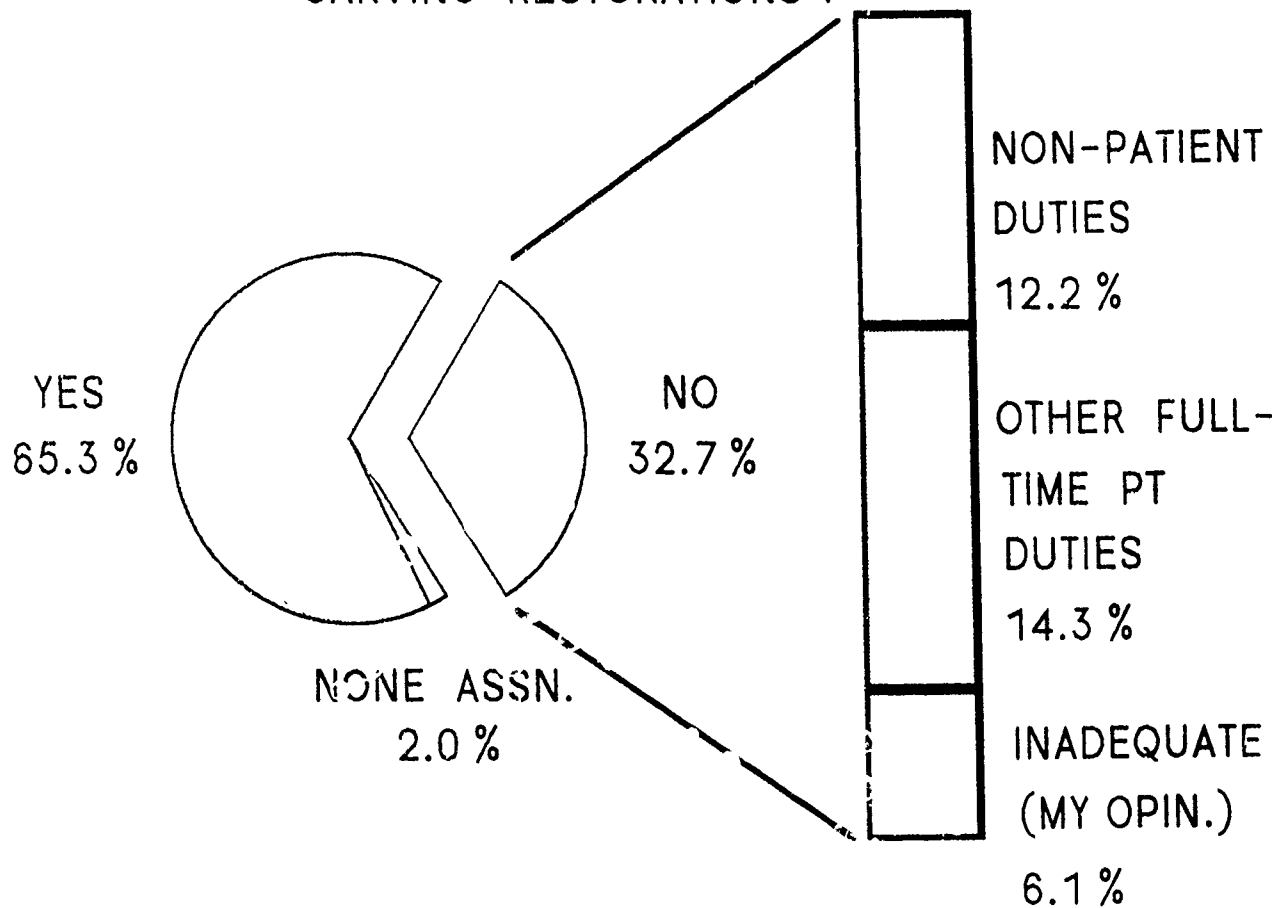


Figure 39

CHIEFS (TOTAL)

ARE X2s IN YOUR CLINIC PLACING AND
CARVING RESTORATIONS ?

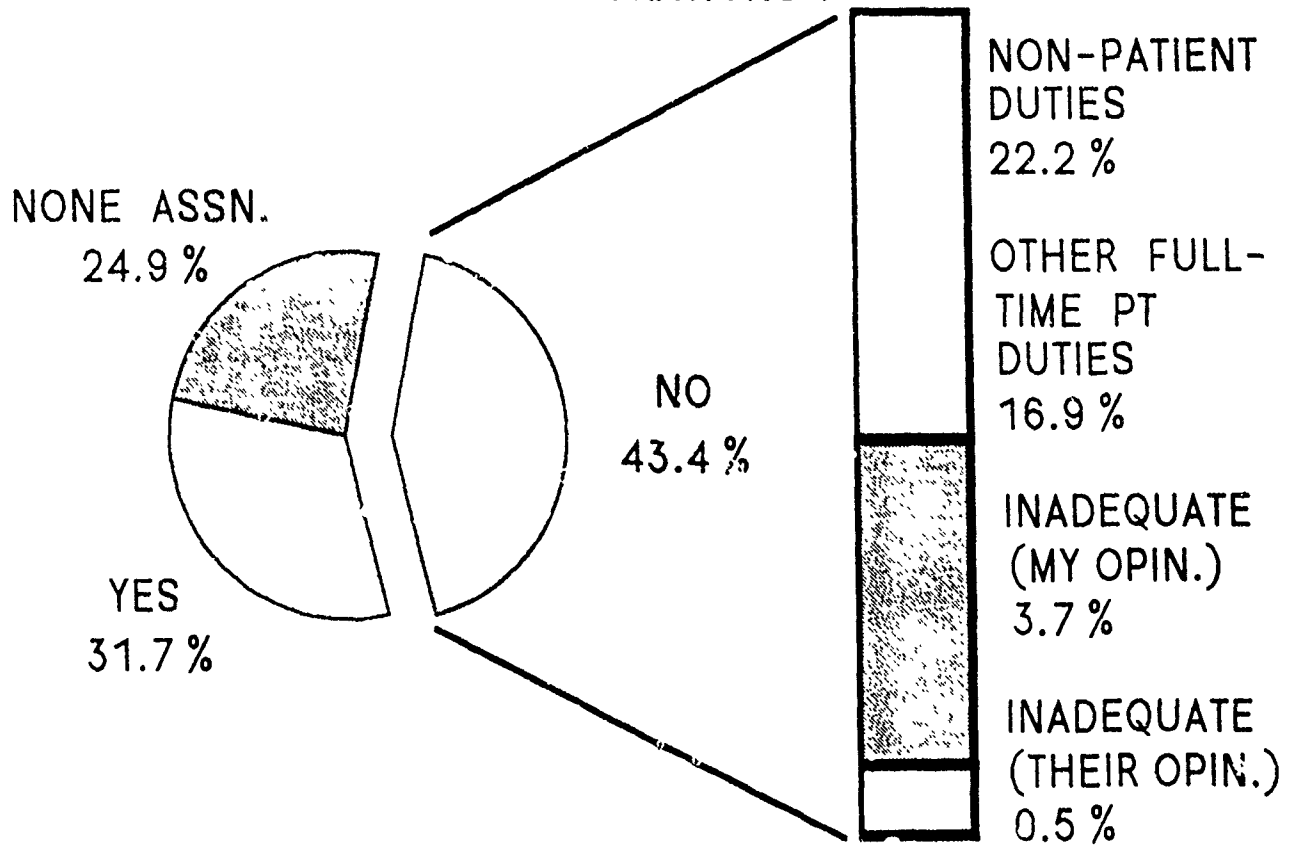


Figure 90

GRADUATES (TOTAL)

DID YOU PLACE AND CARVE RESTORATIONS AT YOUR
FIRST ASSIGNMENT AFTER X2 TNG ?

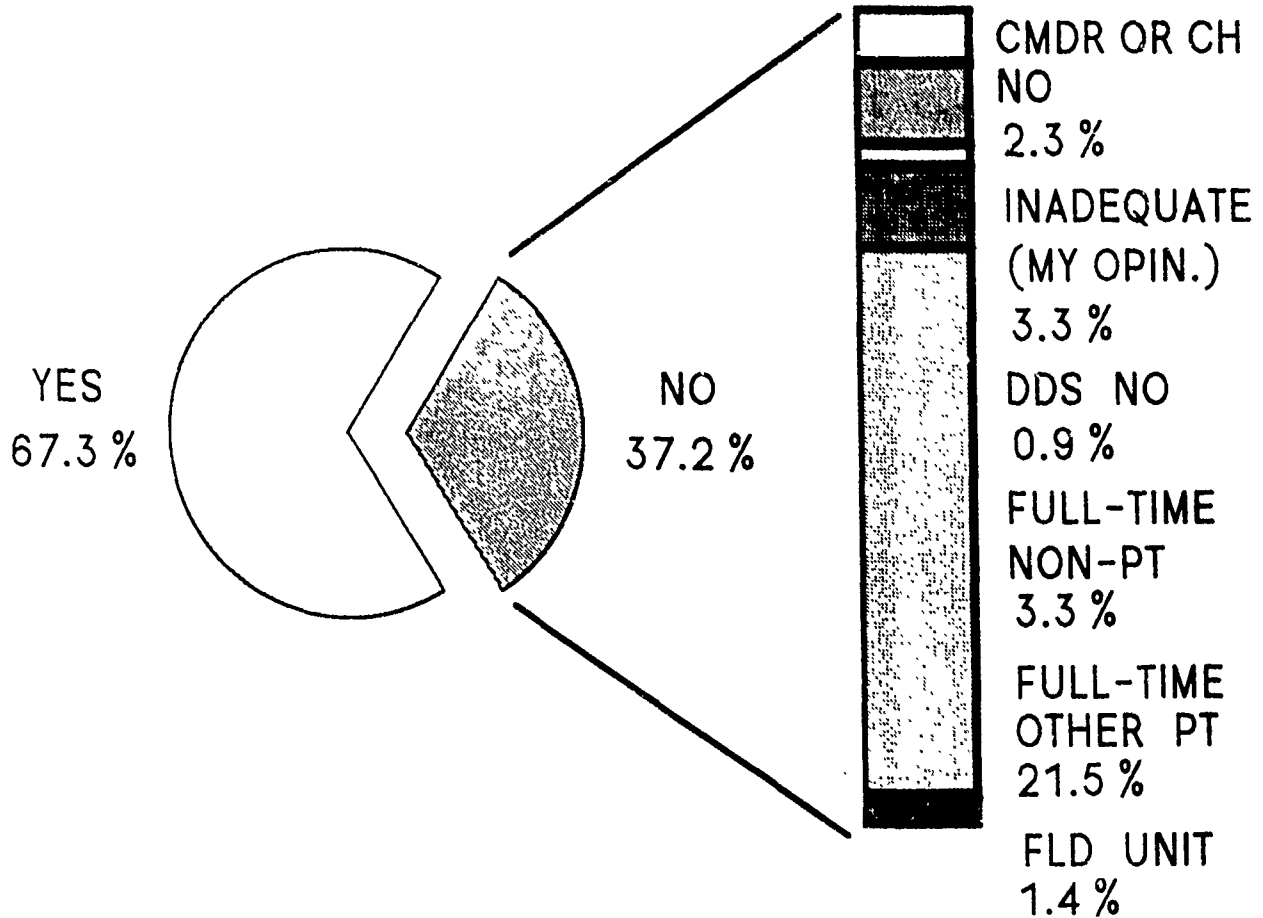


Figure 91

DOCTORS (TOTAL)

DID X2s YOU WORKED WITH PLACE AND CARVE
RESTORATIONS ?

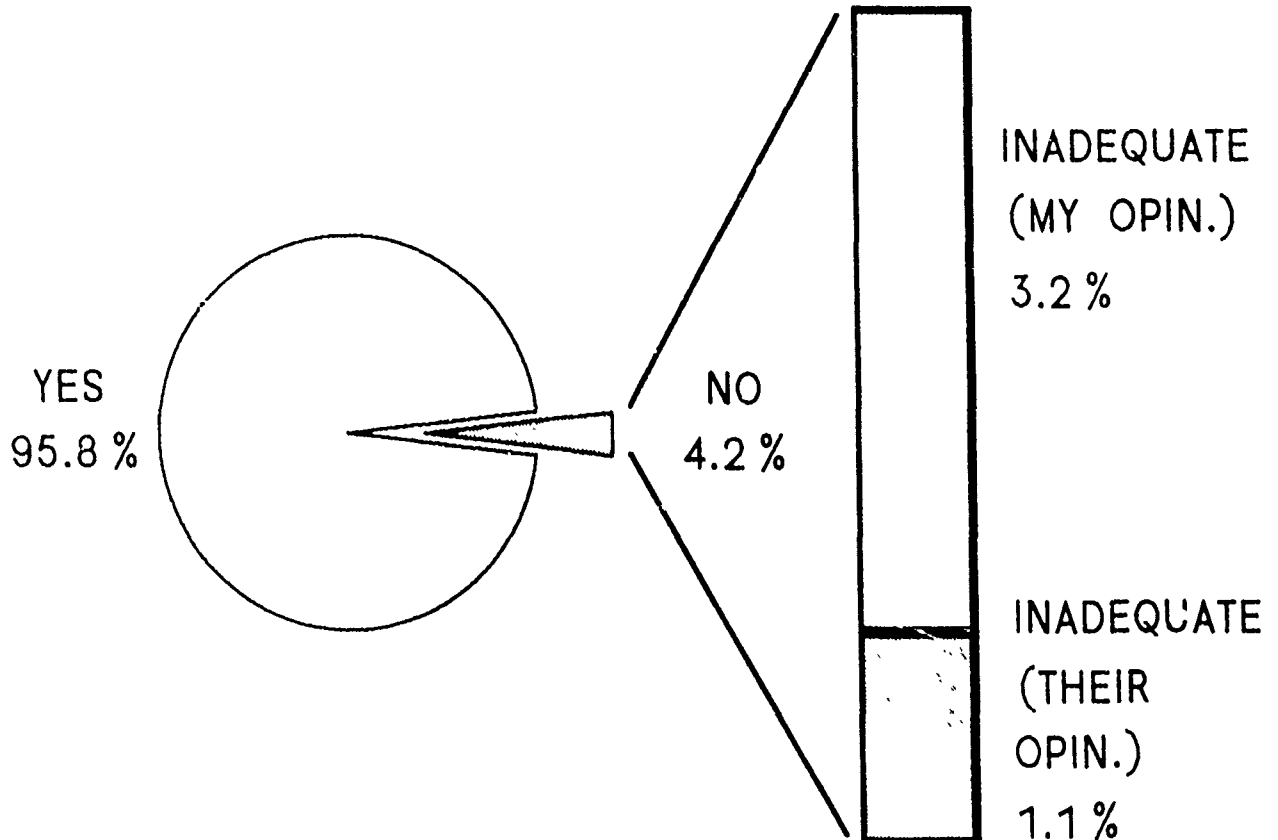


Figure 92

THE ARMY SHOULD RESTRICT X2 GRADS TO HYGIENE OR EXPANDED FUNCTIONS FOR CAREERS

